

Figure 28. MM5 simulated temperatures(C) in the surface layer (6 m AGL) on the 4-km domain, valid for 1200 UTC, 7 December 1995, (+12 h) in Exp. GS-2. Isotherm interval is 2 C.

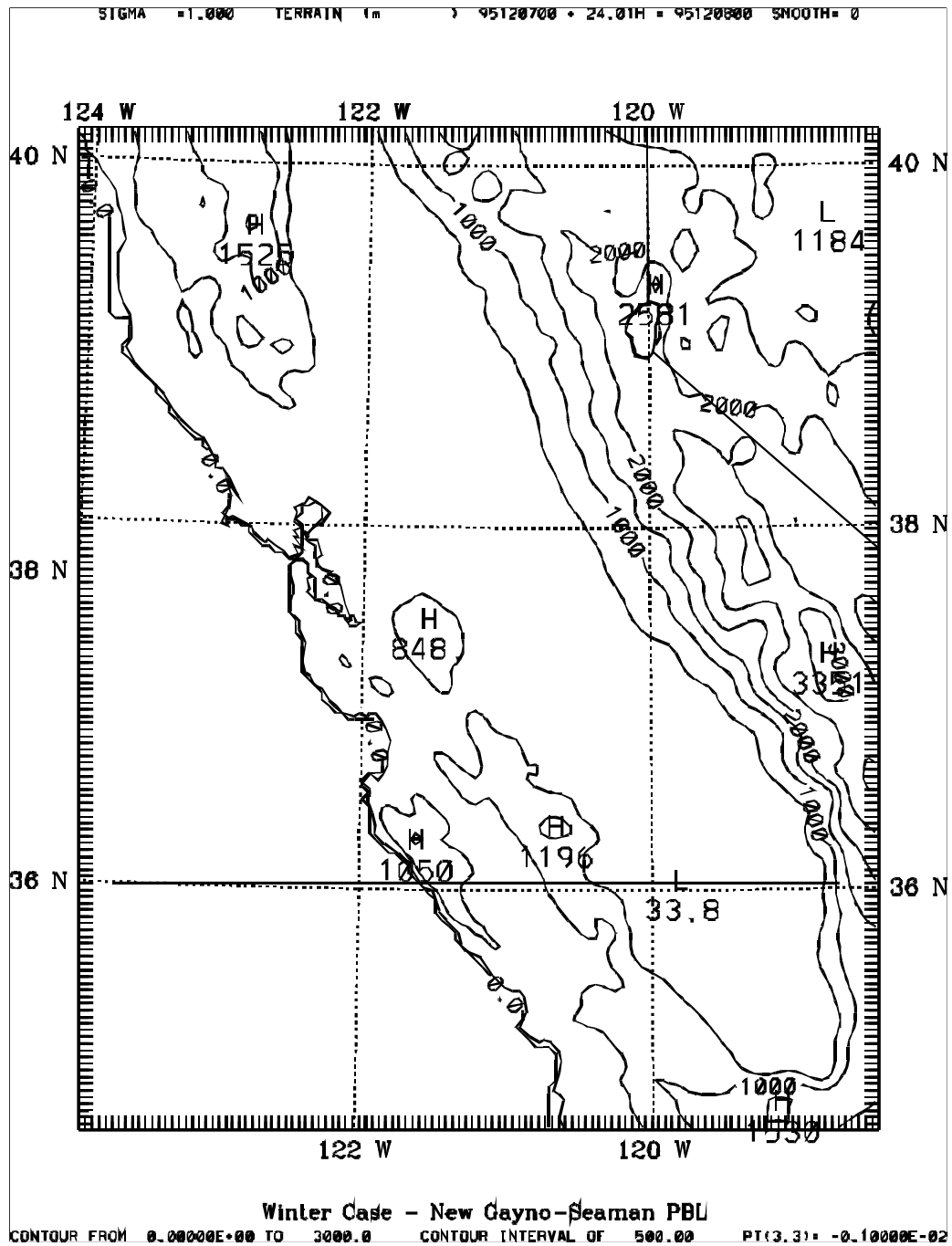


Figure 29. Location of east-west cross section along 36 N, between Fresno and Bakersfield, CA, overlaid on 4-km terrain (plotted with 500 m contour intervals).

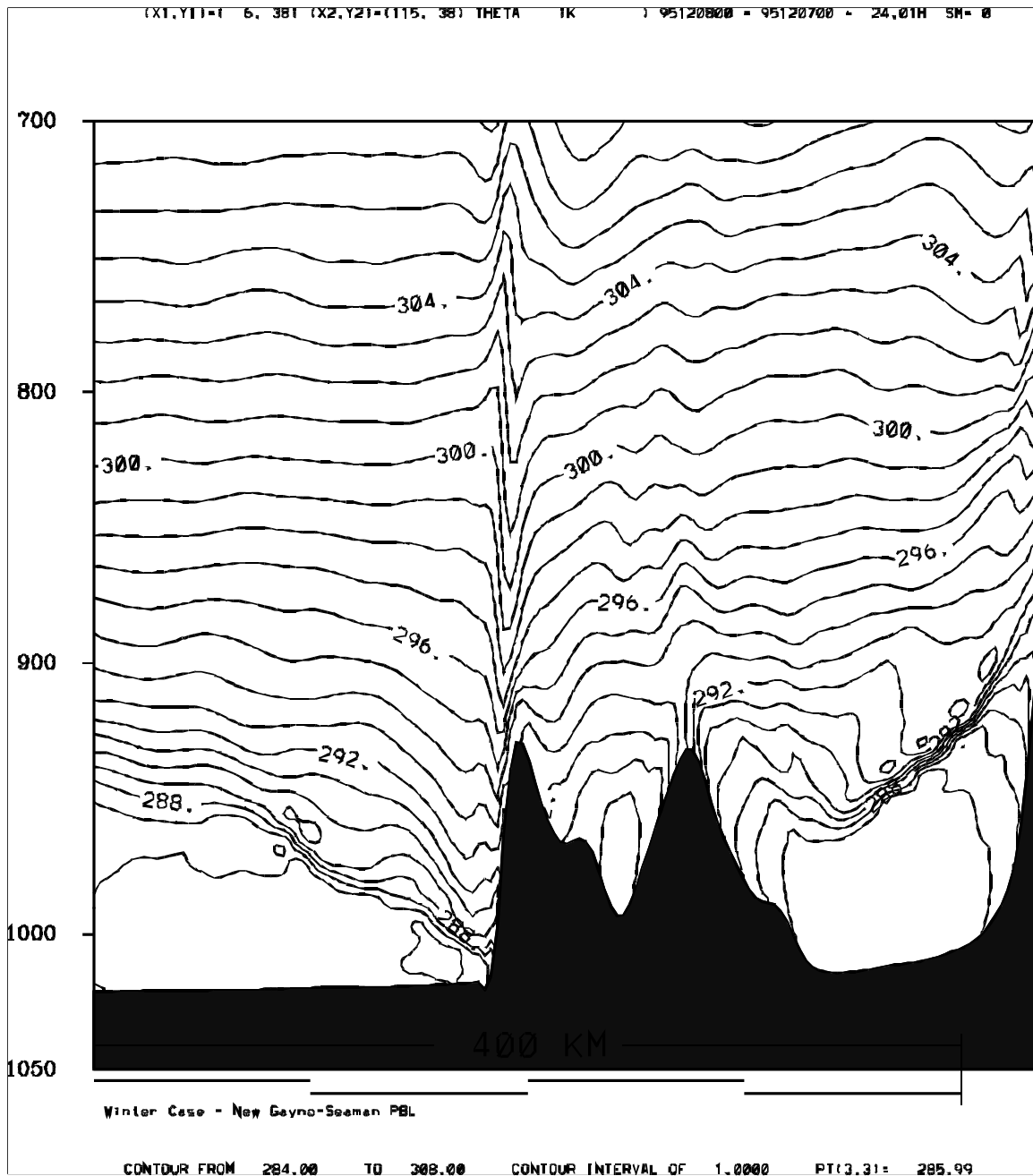


Figure 30. MM5 simulated potential temperature,  $q$  (K), on the 4-km domain plotted in the plane of the Fresno cross section, valid for 0000 UTC, 8 December 1995 (+24 h) in Exp. GS-2. Isentrope interval is 1 K.

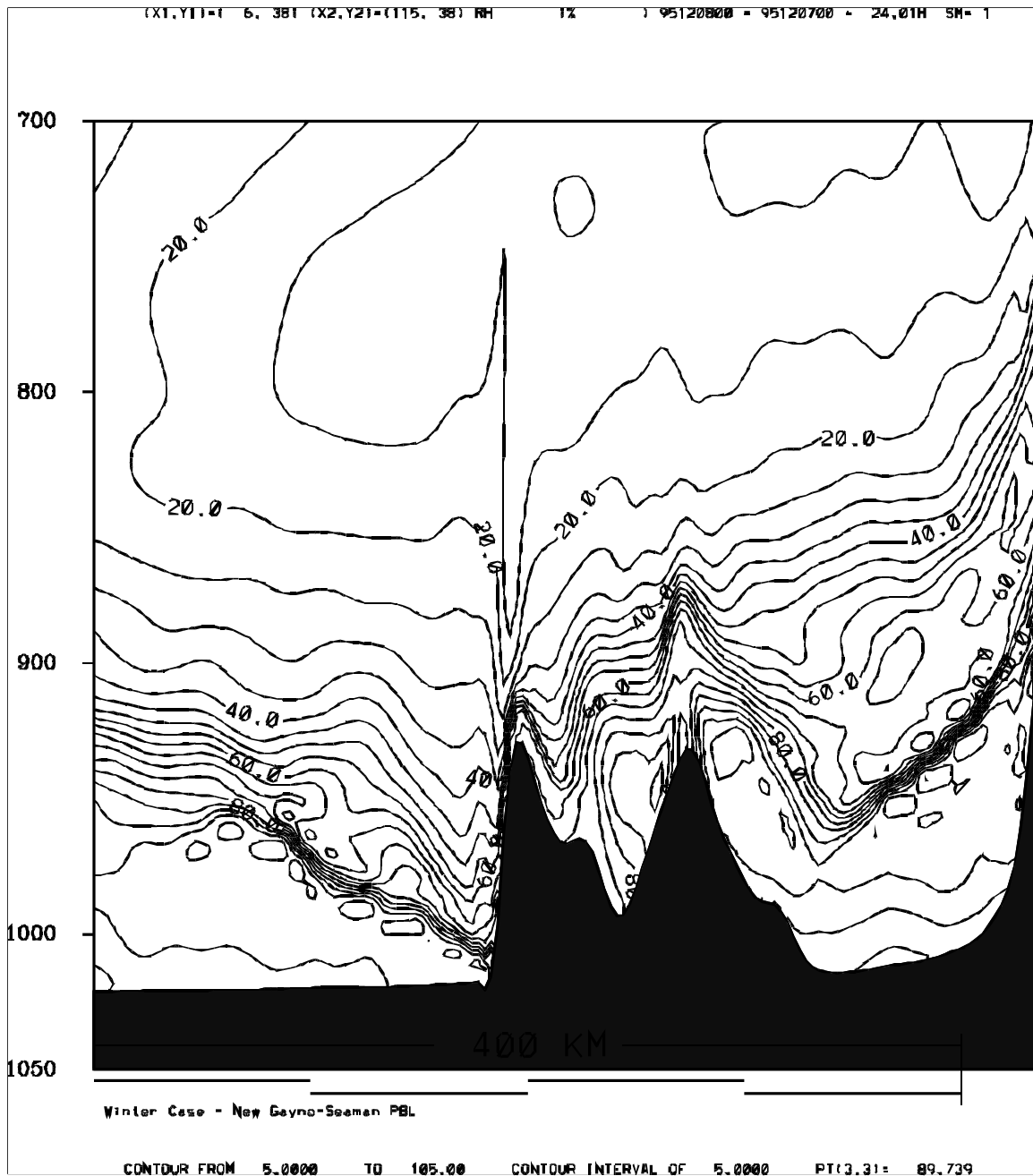
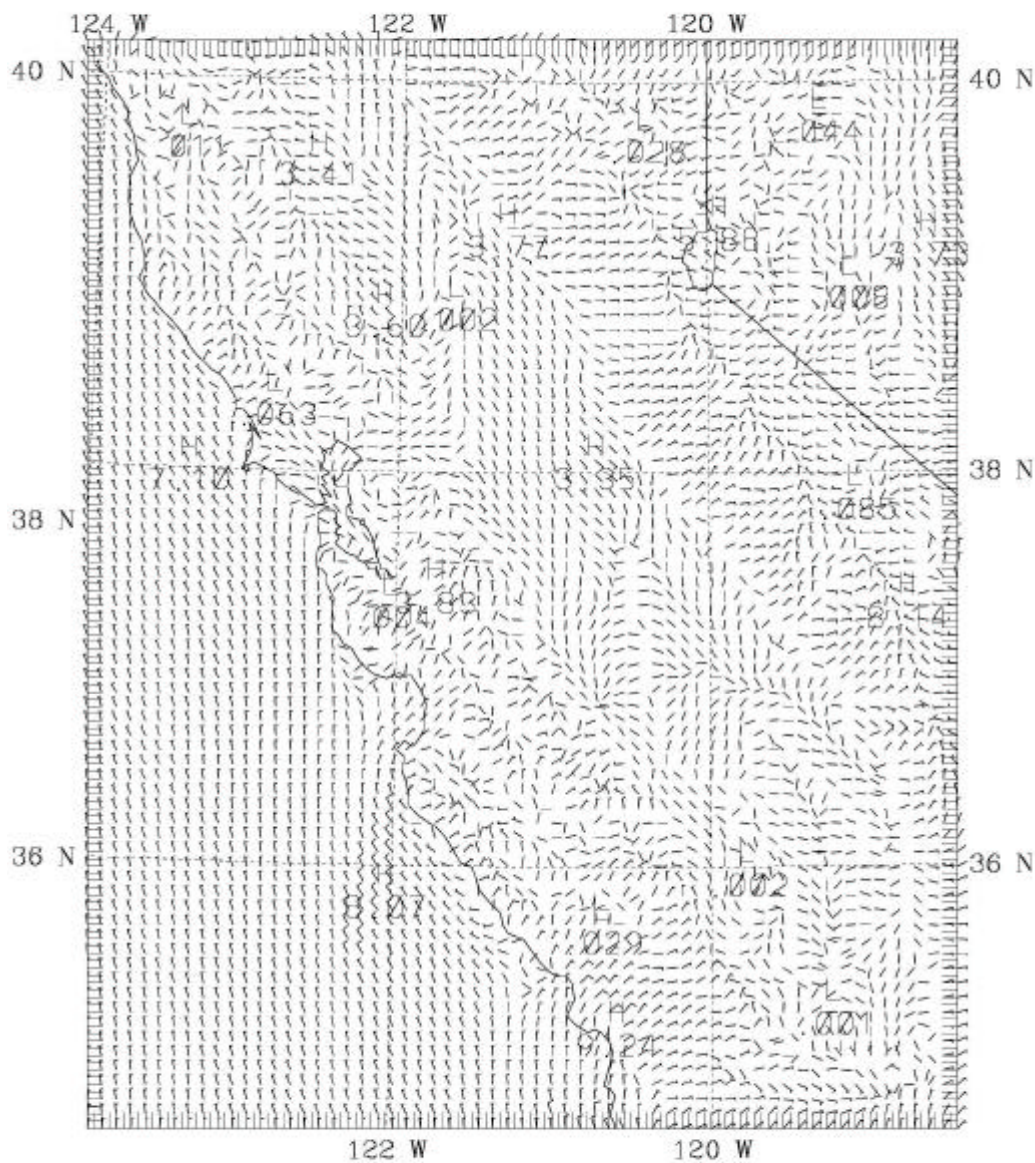


Figure 31. MM5 simulated relative humidity, (%), on the 4-km domain plotted in the plane of the Fresno cross section, valid for 0000 UTC, 8 December 1995 (+24 h) in Exp. GS-2. Contour interval is 1 K.

SIGMA = 0.999 WIND UV (m/s) 95120700 + 36.01H = 95120812 SMOOTH= 0  
 SIGMA = 0.999 BARB UV (m/s) 95120812 = 95120700 + 36.01H SMOOTH= 0



Winter Case - New Gayno-Seaman PBL  
 CONTOUR FROM 10.000 TO 12.000 CONTOUR INTERVAL OF 10.000 PT(3,31) 5.5123

Figure 32. MM5 simulated winds ( $\text{m s}^{-1}$ ) in the surface layer (6 m AGL) on the 4-km domain, valid for 1200 UTC, 8 December 1995, (+36 h) in Exp. GS-2. Isotach interval is  $10 \text{ m s}^{-1}$ .



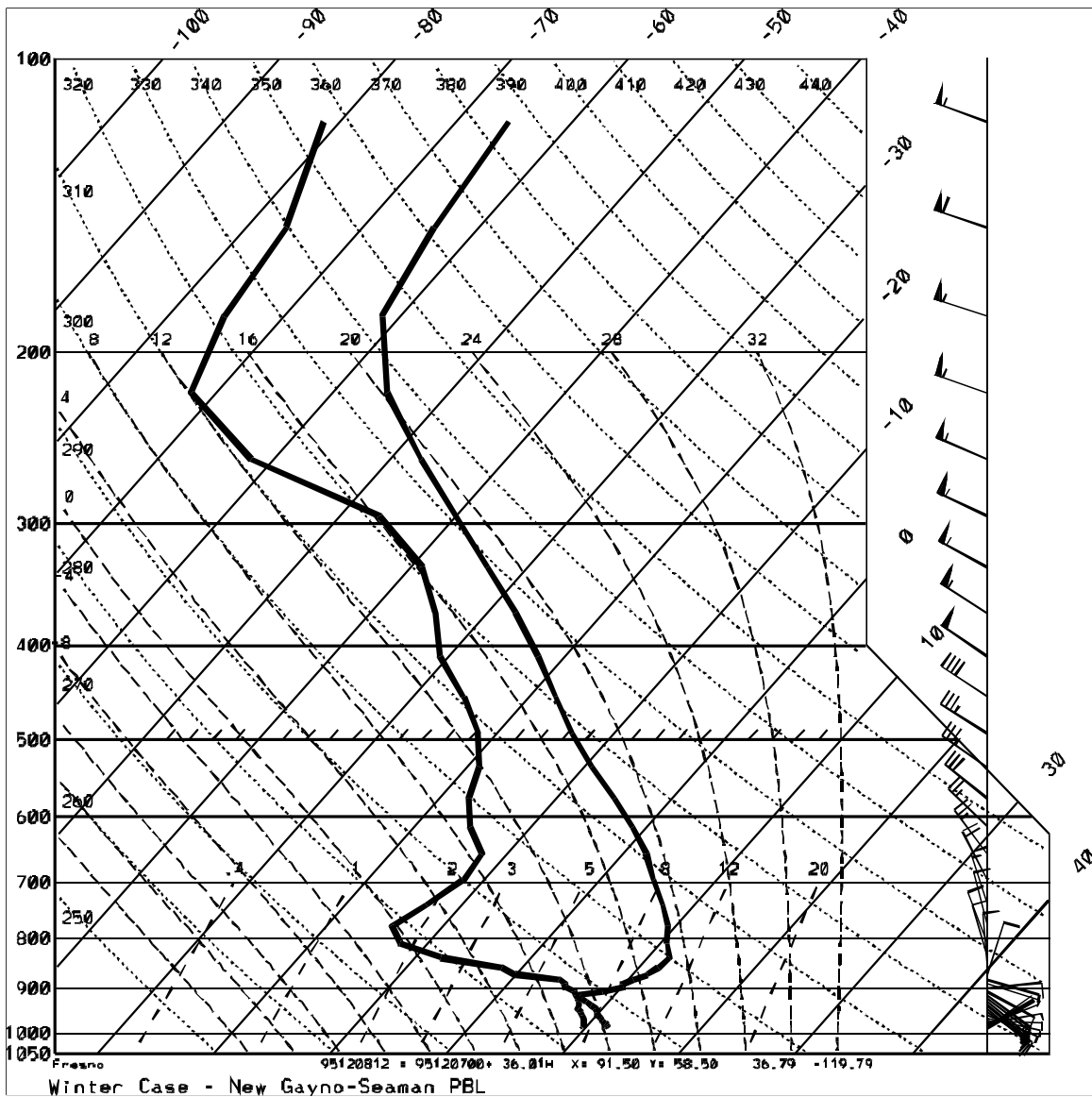


Figure 34. MM5 simulated sounding plotted at Fresno, CA, for 1200 UTC, 8 December 1995, (+36 h) in Exp. GS-2.

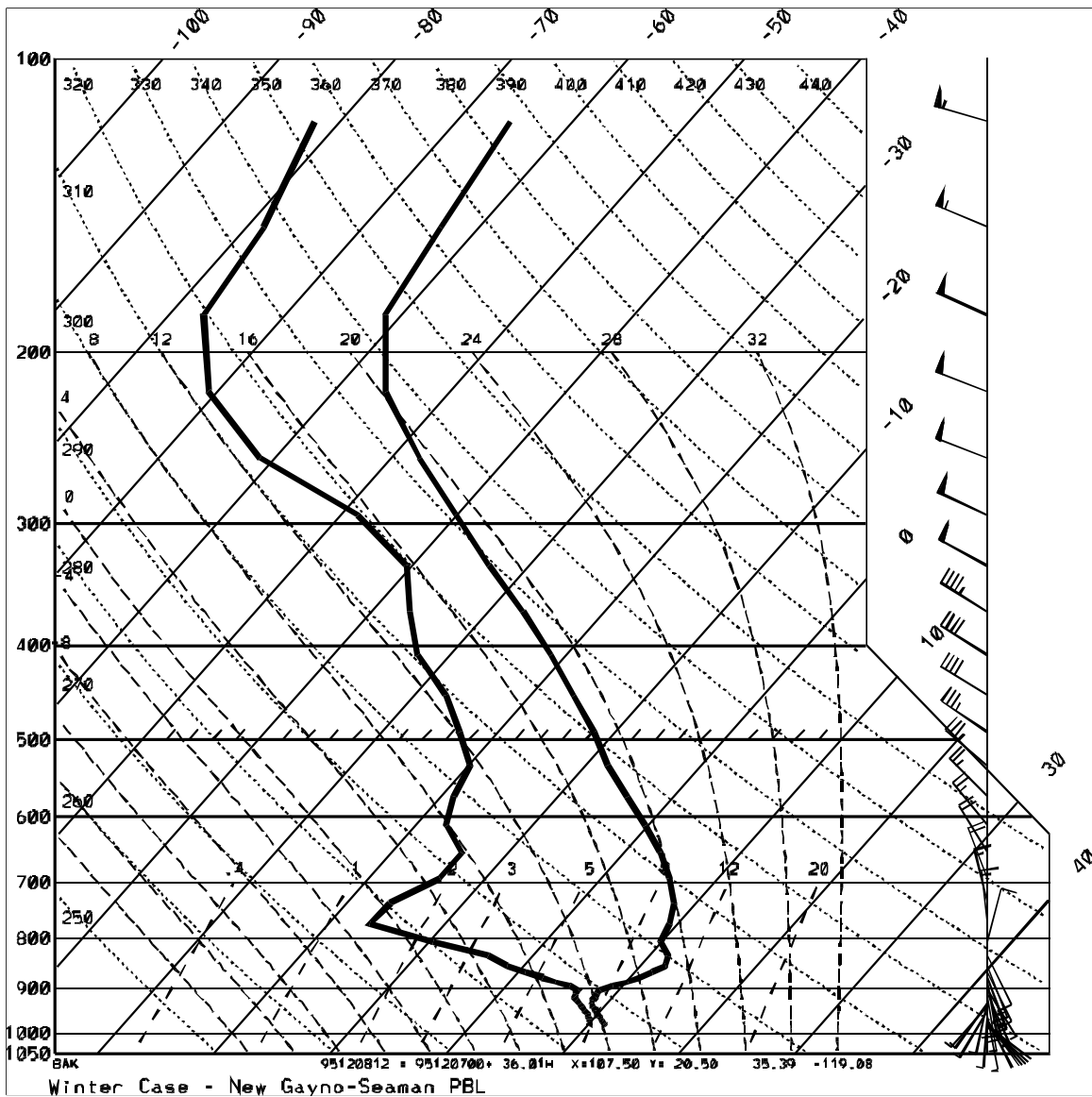


Figure 35. MM5 simulated sounding plotted at Bakersfield, CA, for 1200 UTC, 8 December 1995, (+36 h) in Exp. GS-2.



Winter Case - New Cayno-Seaman PBL

CONTOUR FROM 10.000 TO 10.000 CONTOUR INTERVAL OF 10.000 PT(3,31)- 4.2709

76

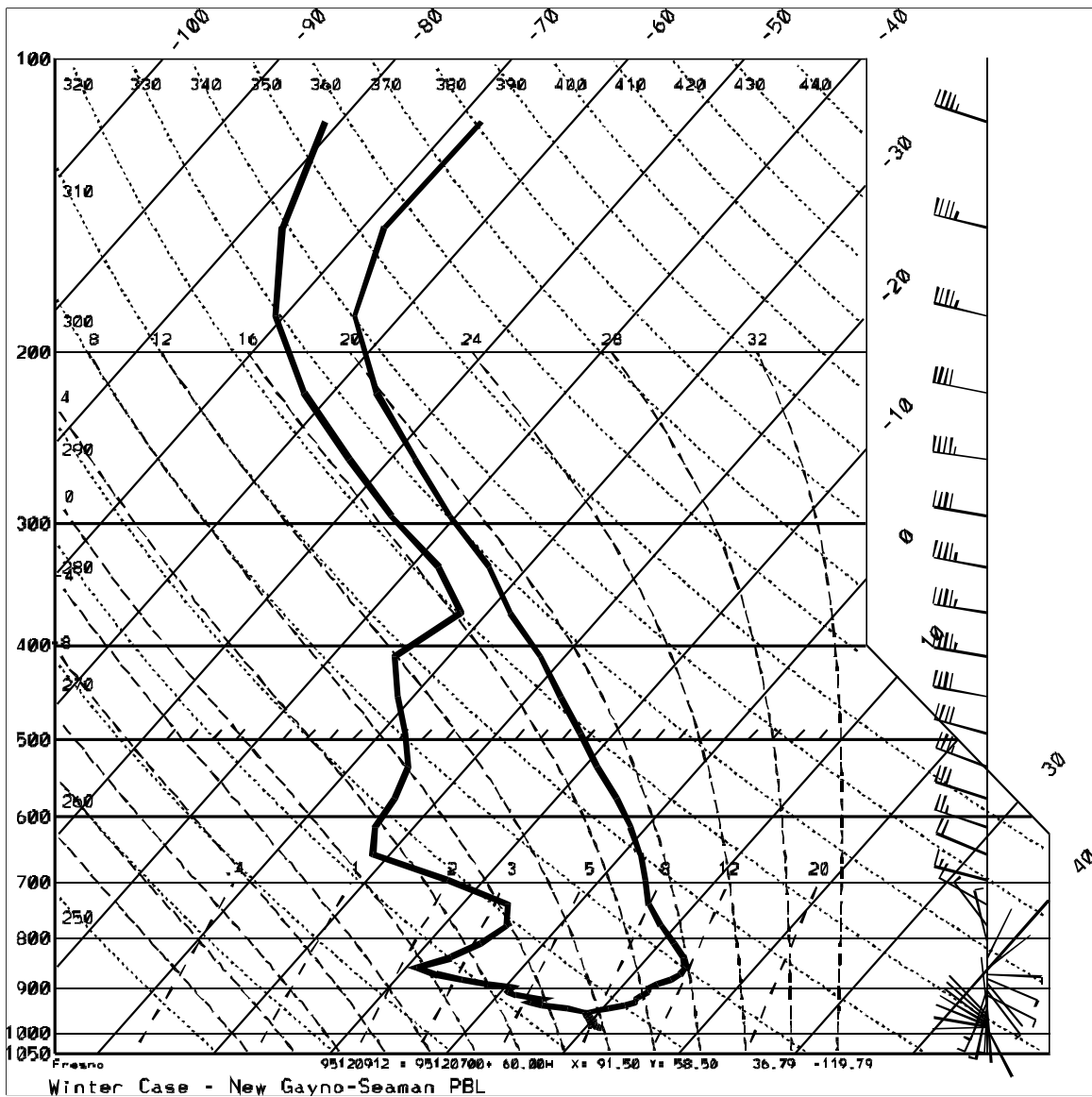


Figure 37. MM5 simulated sounding plotted at Fresno, CA, for 1200 UTC, 9 December 1995, (+60 h) in Exp. GS-2.

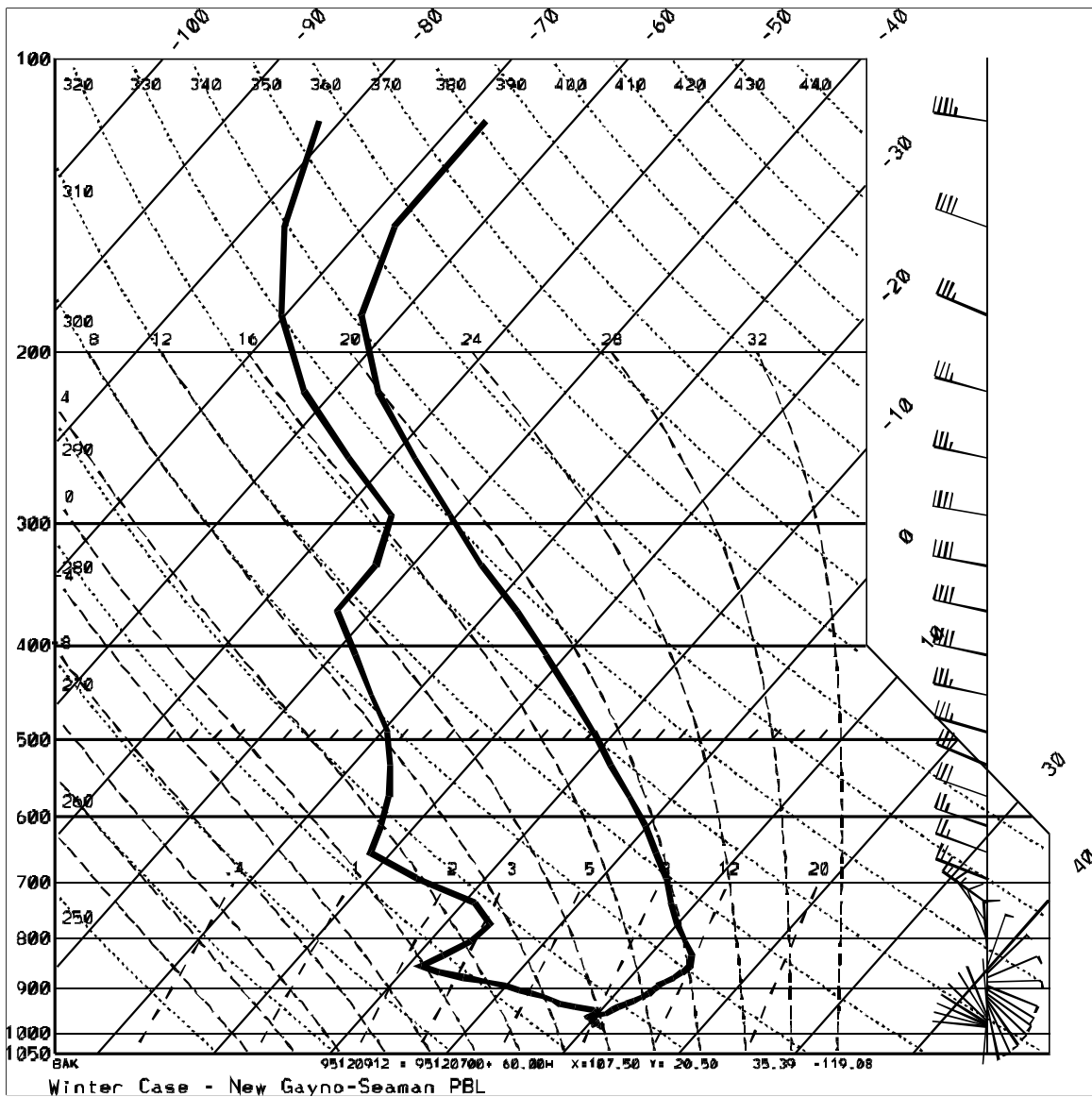


Figure 38. MM5 simulated sounding plotted at Bakersfield, CA, for 1200 UTC, 9 December 1995, (+60 h) in Exp. GS-2.

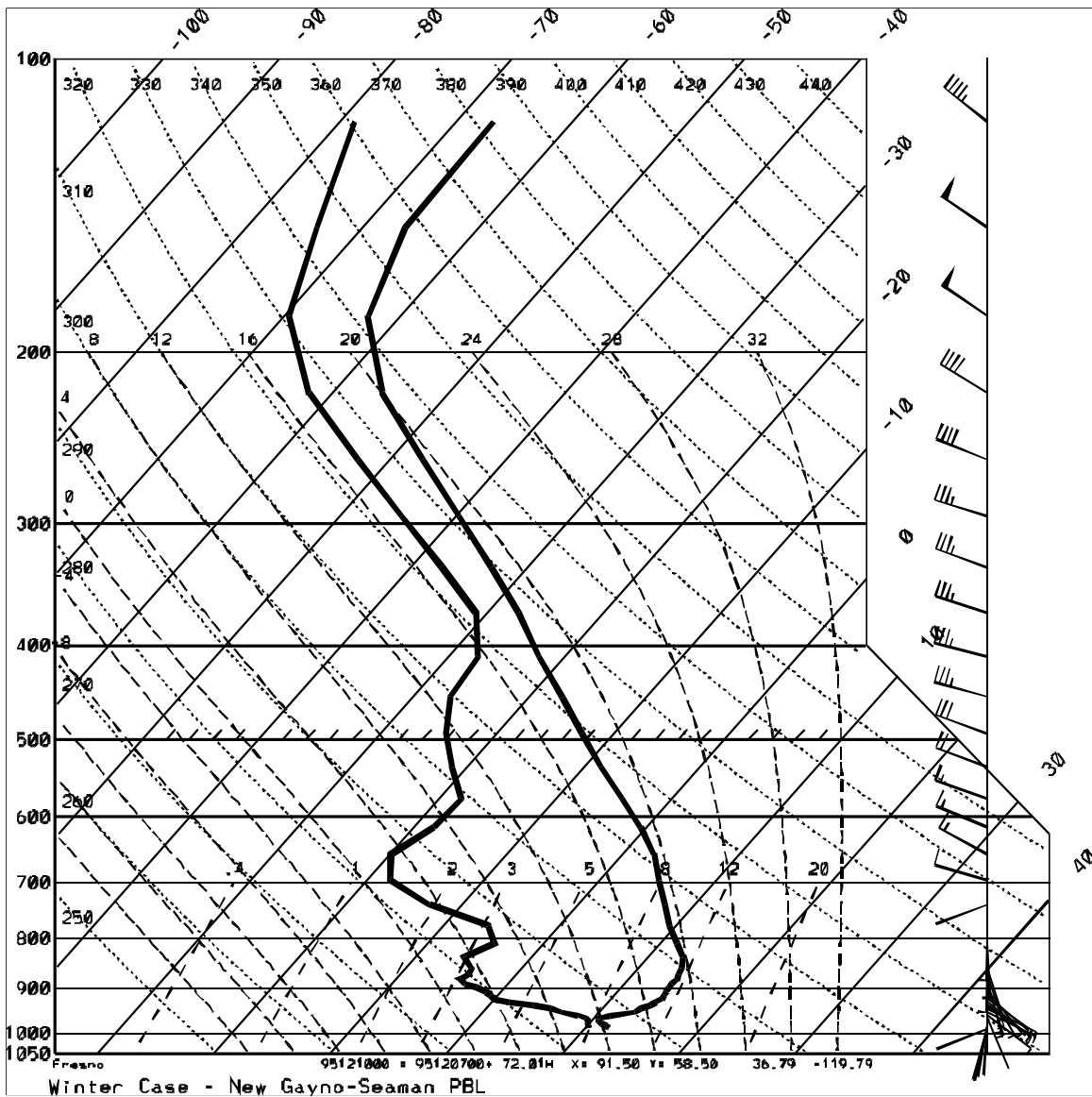


Figure 39. MM5 simulated sounding plotted at Fresno, CA, for 0000 UTC, 10 December 1995, (+72 h) in Exp. GS-2.

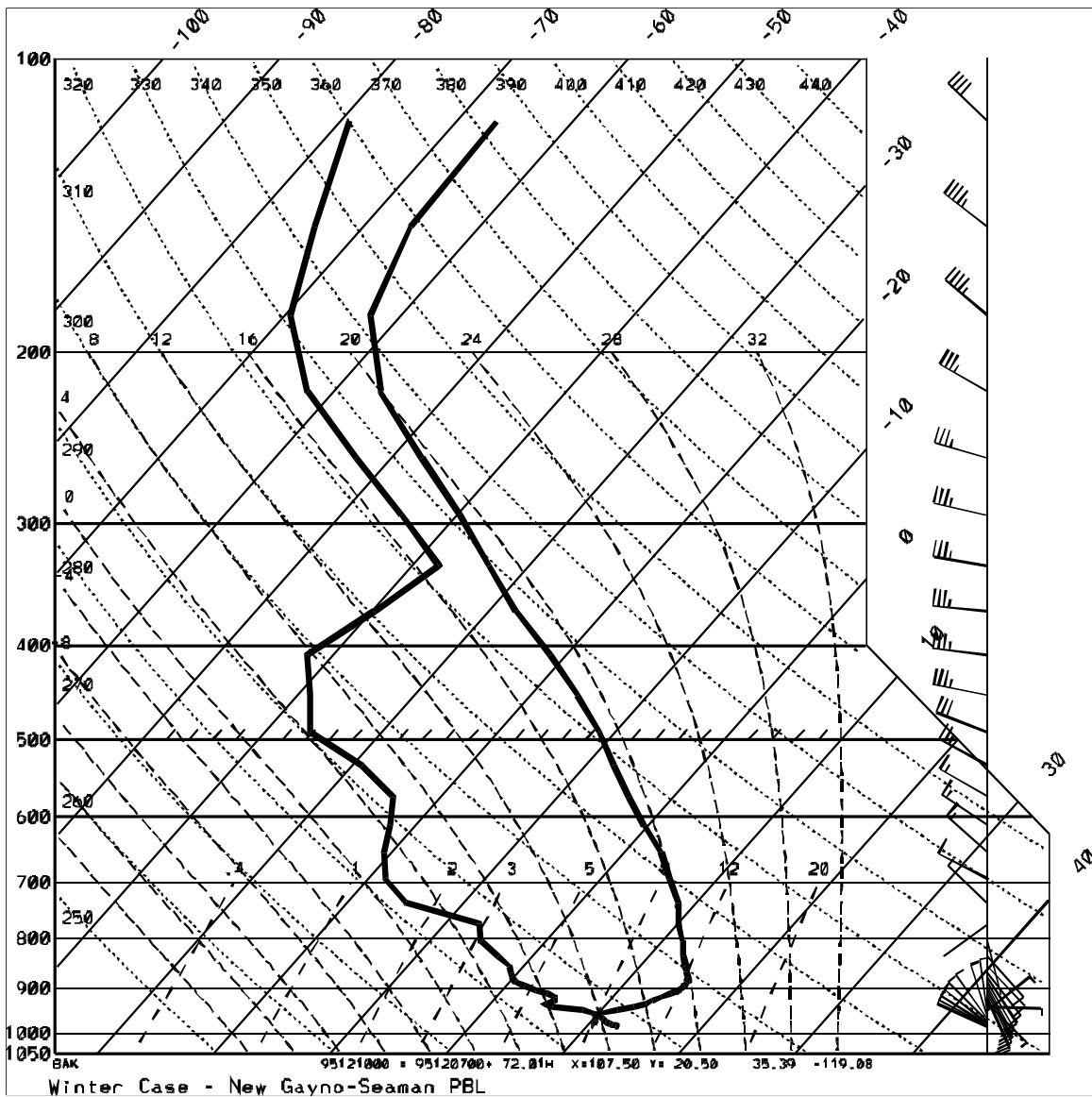


Figure 40. MM5 simulated sounding plotted at Bakersfield, CA, for 0000 UTC, 10 December 1995, (+72 h) in Exp. GS-2.

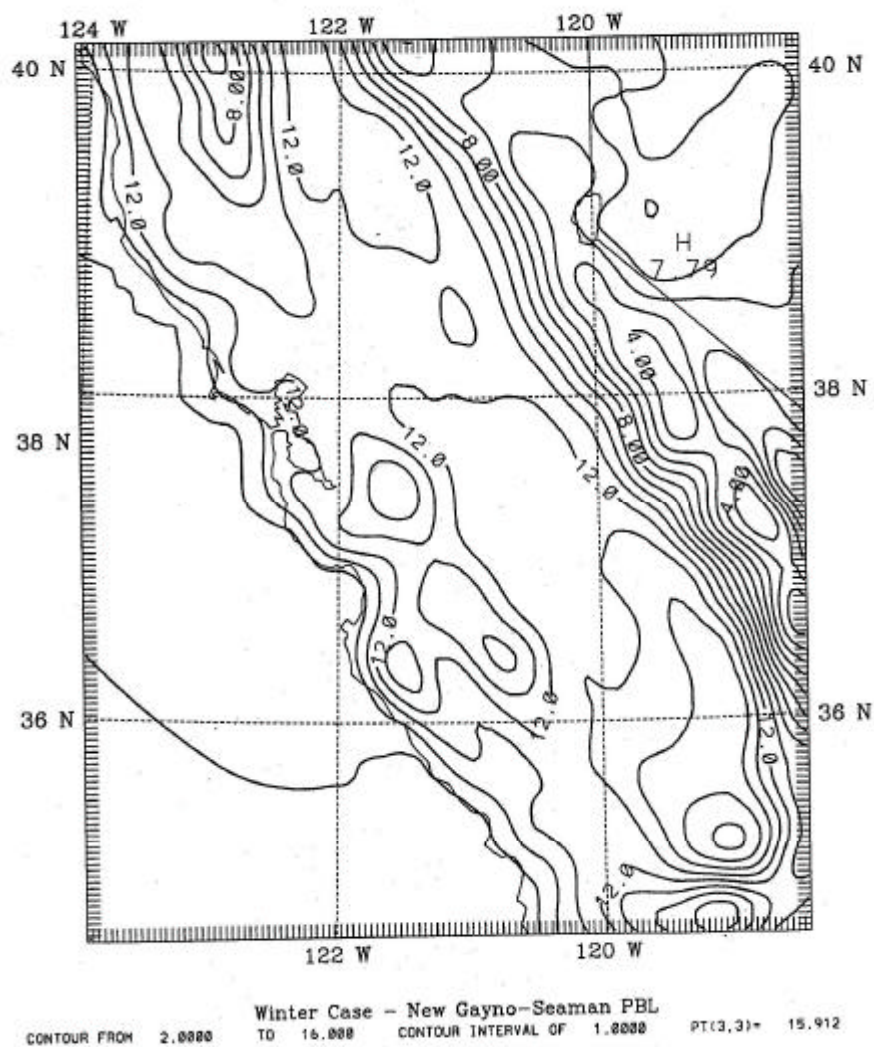


Figure 41. MM5 deep-soil temperatures (C) on the 4-km domain, generated for the model initialization and held constant through the simulation period. Valid for Exps. GS1, GS-2, and BLK-1. Isotherm interval is 1 C.



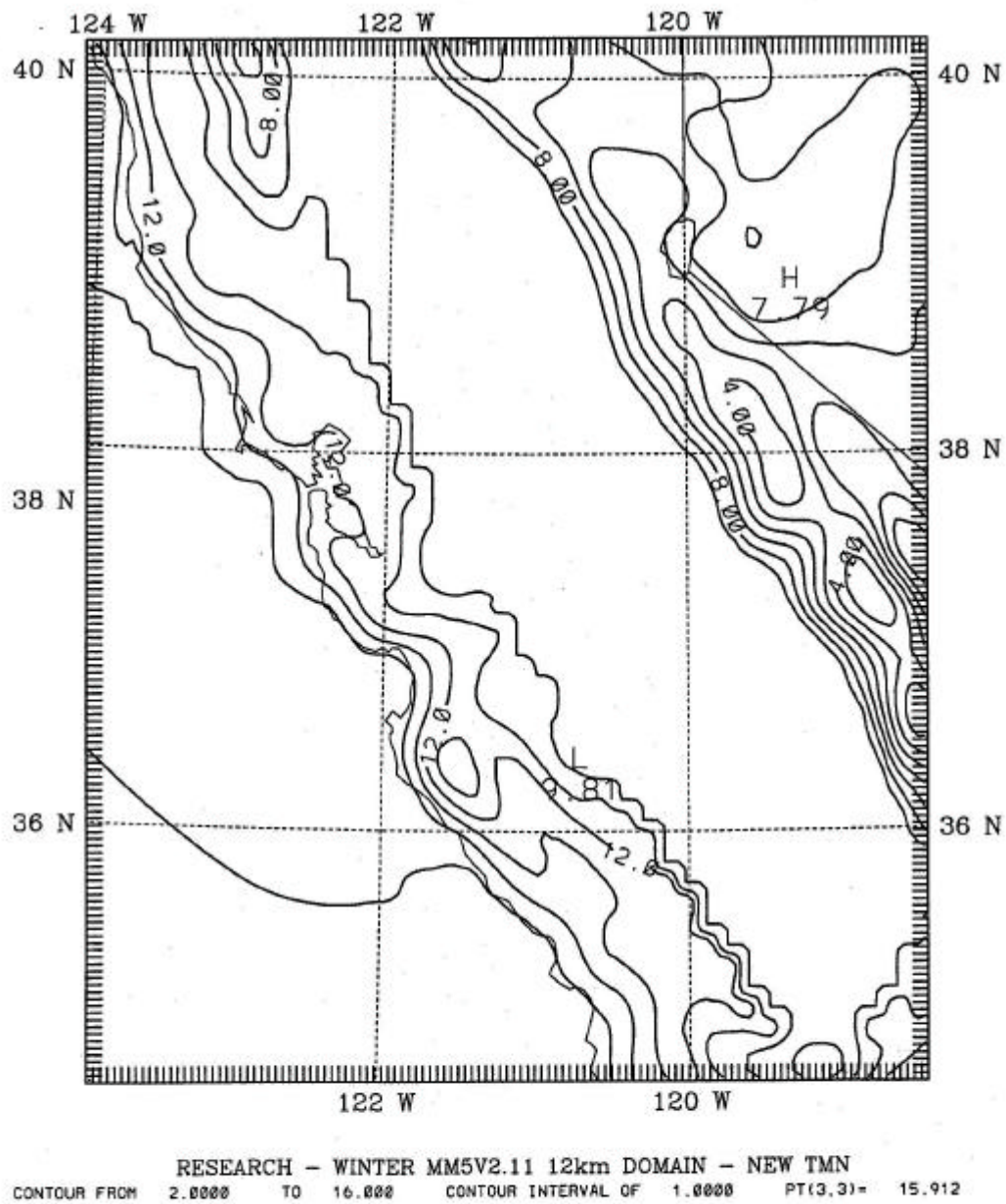
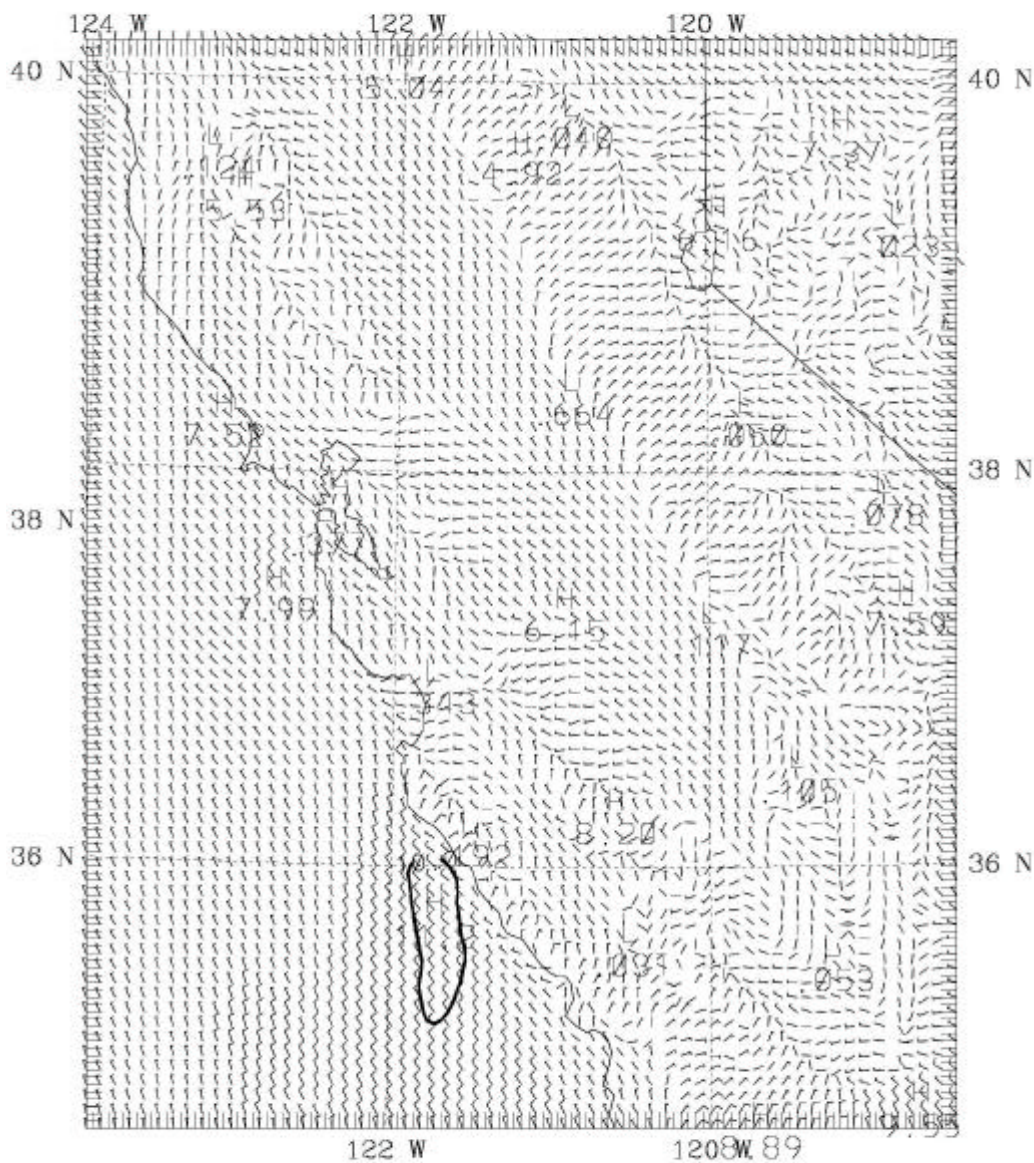


Figure 42. MM5 deep-soil temperatures (C) on the 4-km domain, generated for the model initialization and held constant through the simulation period. Valid for Exp. GS-3. Isotherm interval is 1 C.

SIGMA = 0.999 WIND UV (m/s) 1 95120700 + 12.01H = 95120712 SMOOTH= 0  
 SIGMA = 0.999 BARB UV (m/s) 1 95120712 = 95120700 + 12.01H SMOOTH= 0



Winter Case - New Gayno-Seaman PBL with modified TMN and Moisture Avail.  
 CONTOUR FROM 0.0000E+00 TO 10.000 CONTOUR INTERVAL OF 10.000 PT(3,31)= 5.2272

Figure 43. MM5 simulated winds ( $\text{m s}^{-1}$ ) in the surface layer (6 m AGL) on the 4-km domain, valid for 1200 UTC, 7 December 1995, (+12 h) in Exp. GS-3. Isotach interval is  $10 \text{ m s}^{-1}$ .



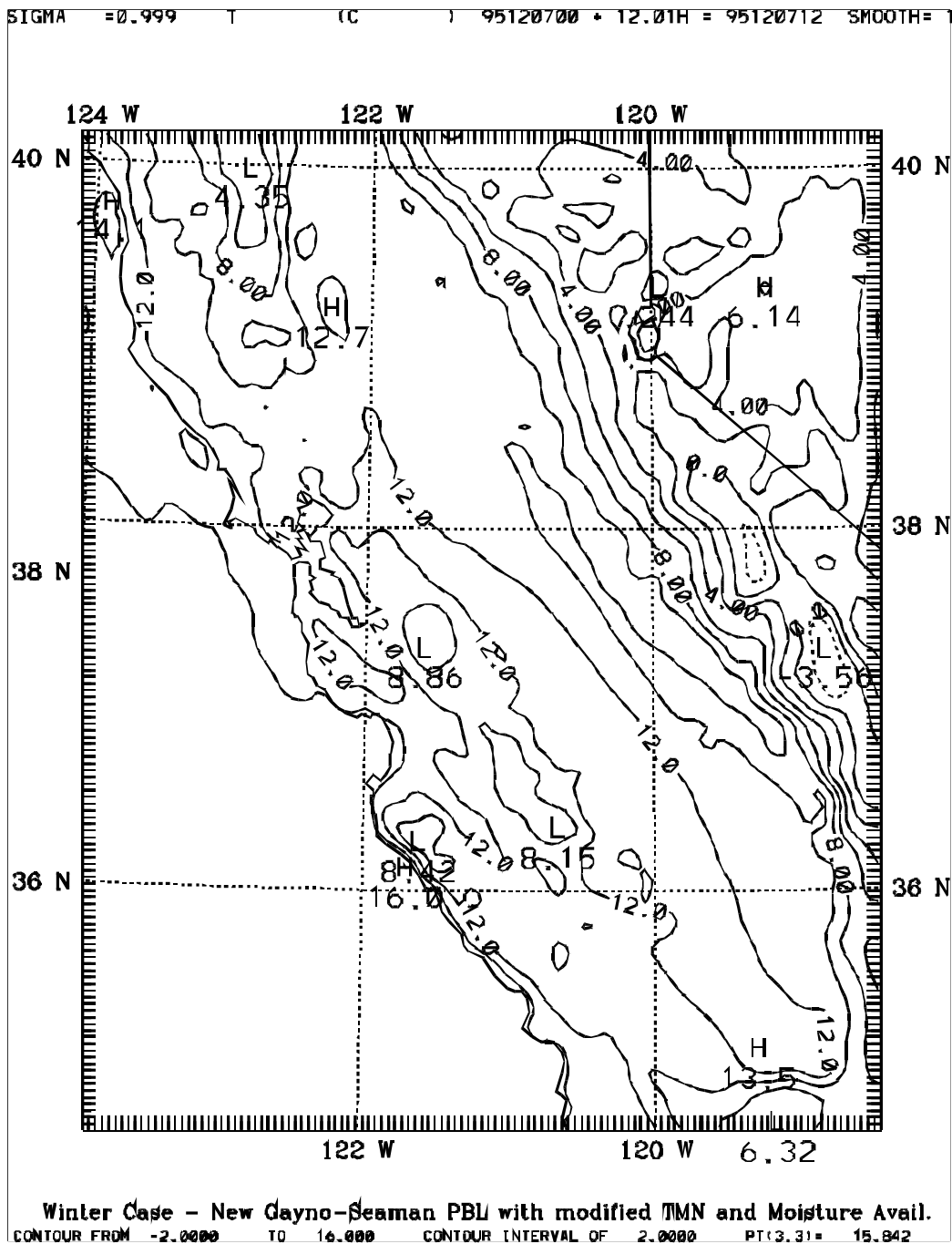


Figure 44. MM5 simulated temperatures (C) in the surface layer (6 mAGL) on the 4-km domain, valid for 1200 UTC, 7 December 1995, (+12 h) in Exp. GS-3. Isotherm interval is 2 C.

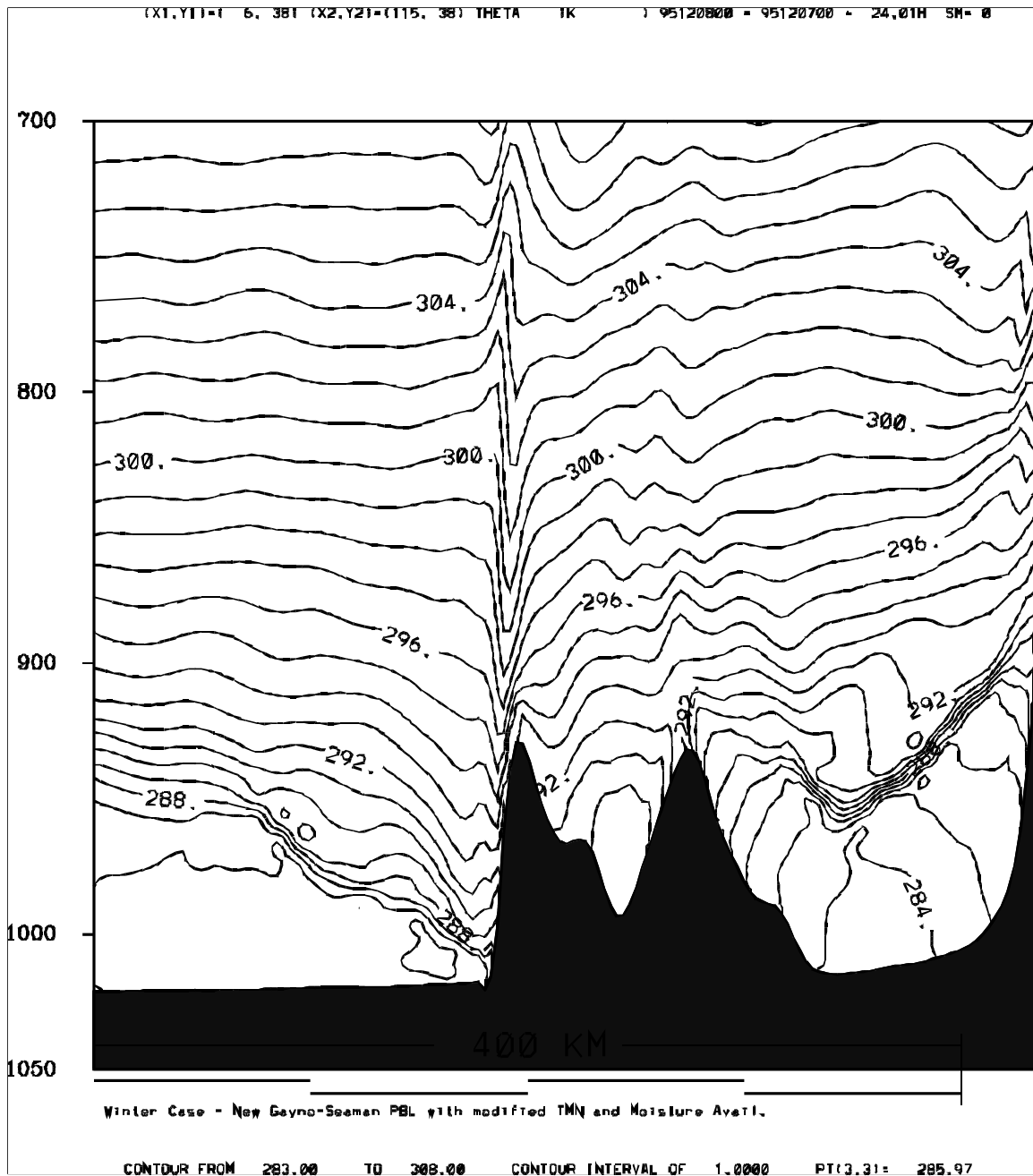


Figure 45. MM5 simulated potential temperature,  $q$  (K), on the 4-km domain plotted in the plane of the Fresno cross section, valid for 0000 UTC, 8 December 1995 (+24 h) in Exp. GS-3. Isentropes interval is 1 K.

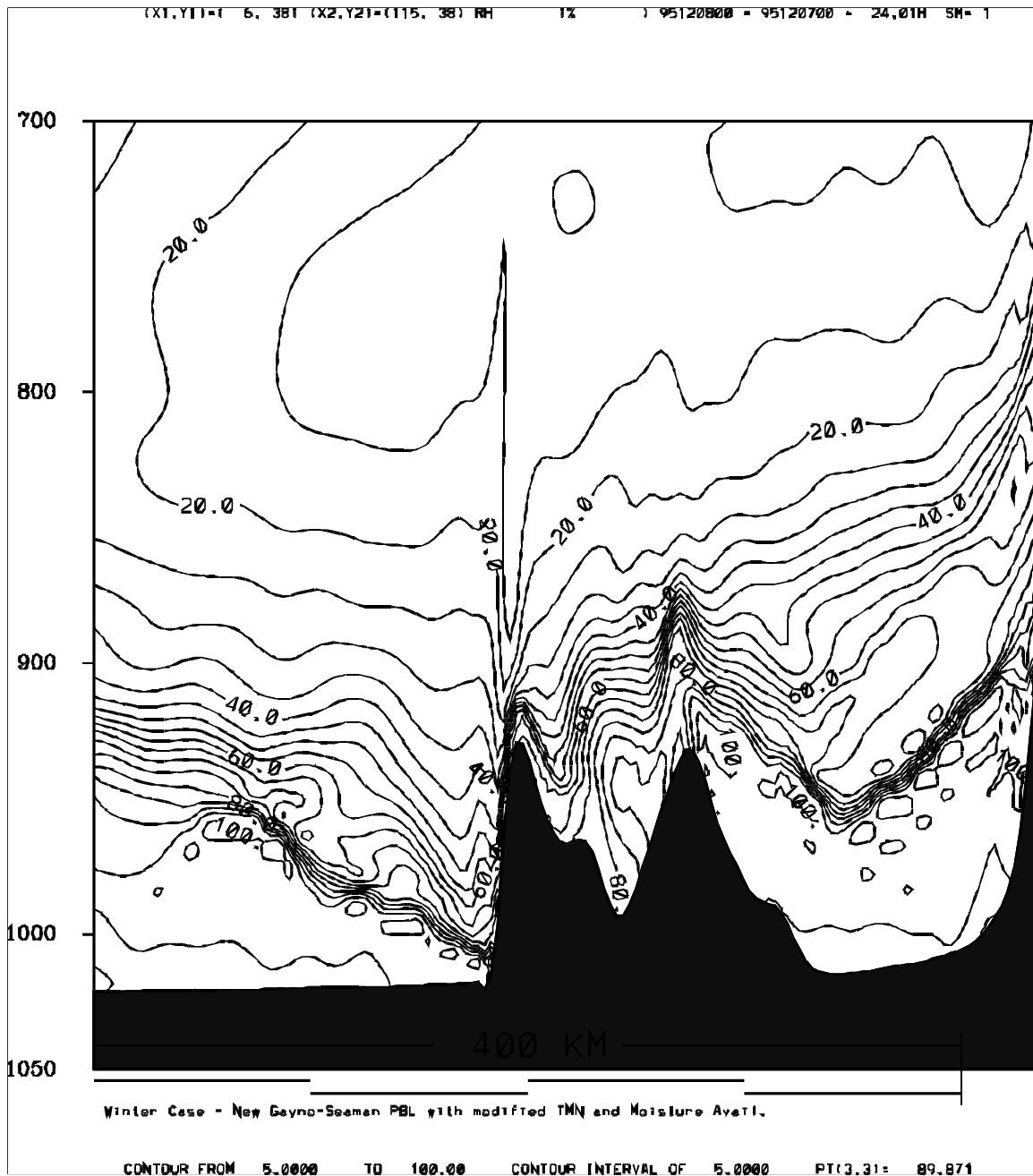


Figure 46. MM5 simulated relative humidity, (%), on the 4-km domain plotted in the plane of the Fresno cross section, valid for 0000 UTC, 8 December 1995 (+24 h) in Exp. GS-3. Contour interval is 1 K.

SIGMA = 0.999 WIND UV (m/s) 1 95120700 + 36.01H = 95120812 SMOOTH= 0  
 SIGMA = 0.999 BARB UV (m/s) 1 95120812 = 95120700 + 36.01H SMOOTH= 0

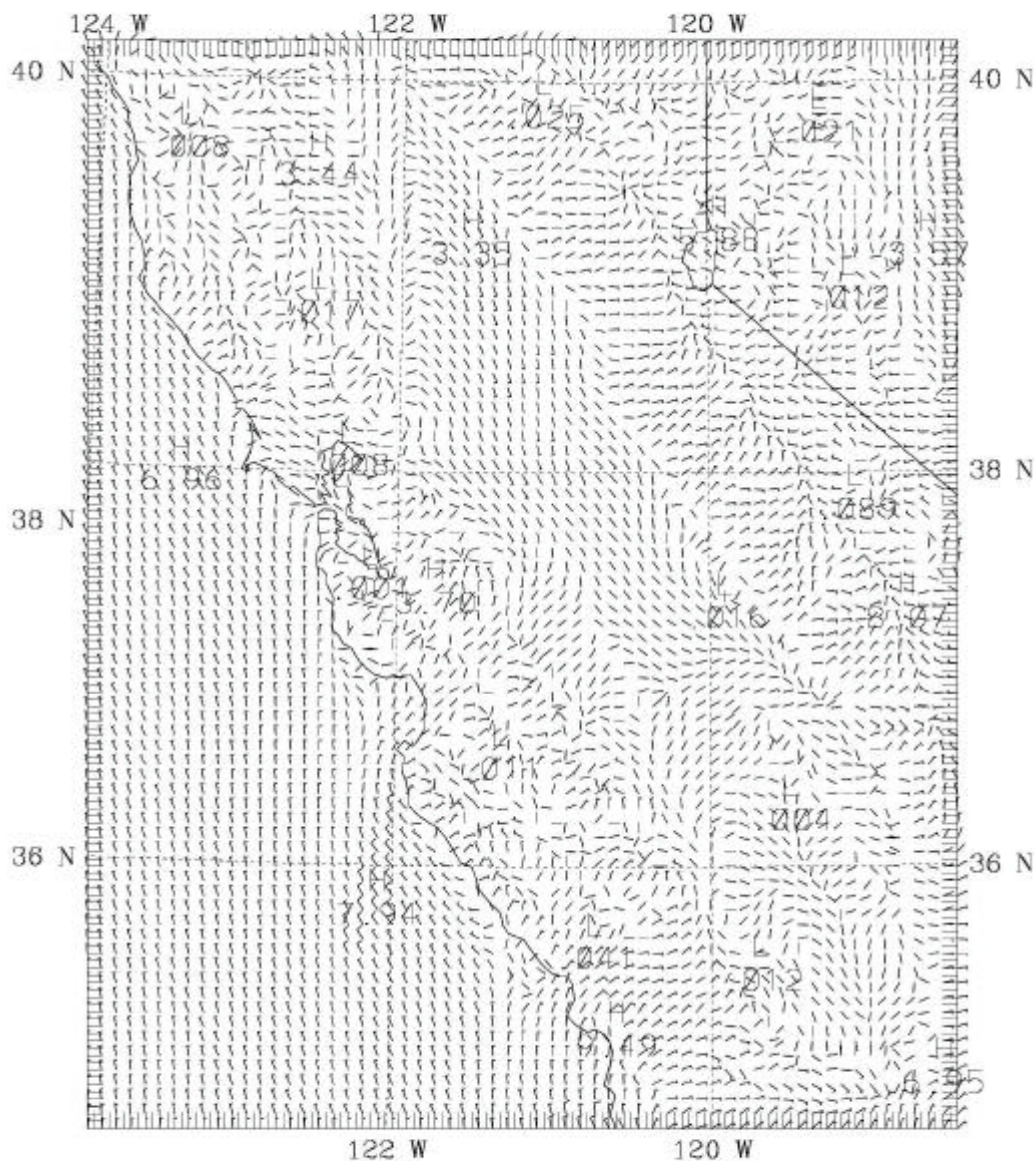


Figure 47. MM5 simulated winds ( $\text{m s}^{-1}$ ) in the surface layer (6 m AGL) on the 4-km domain, valid for 1200 UTC, 8 December 1995, (+36 h) in Exp. GS-3. Isotach interval is  $10 \text{ m s}^{-1}$ .





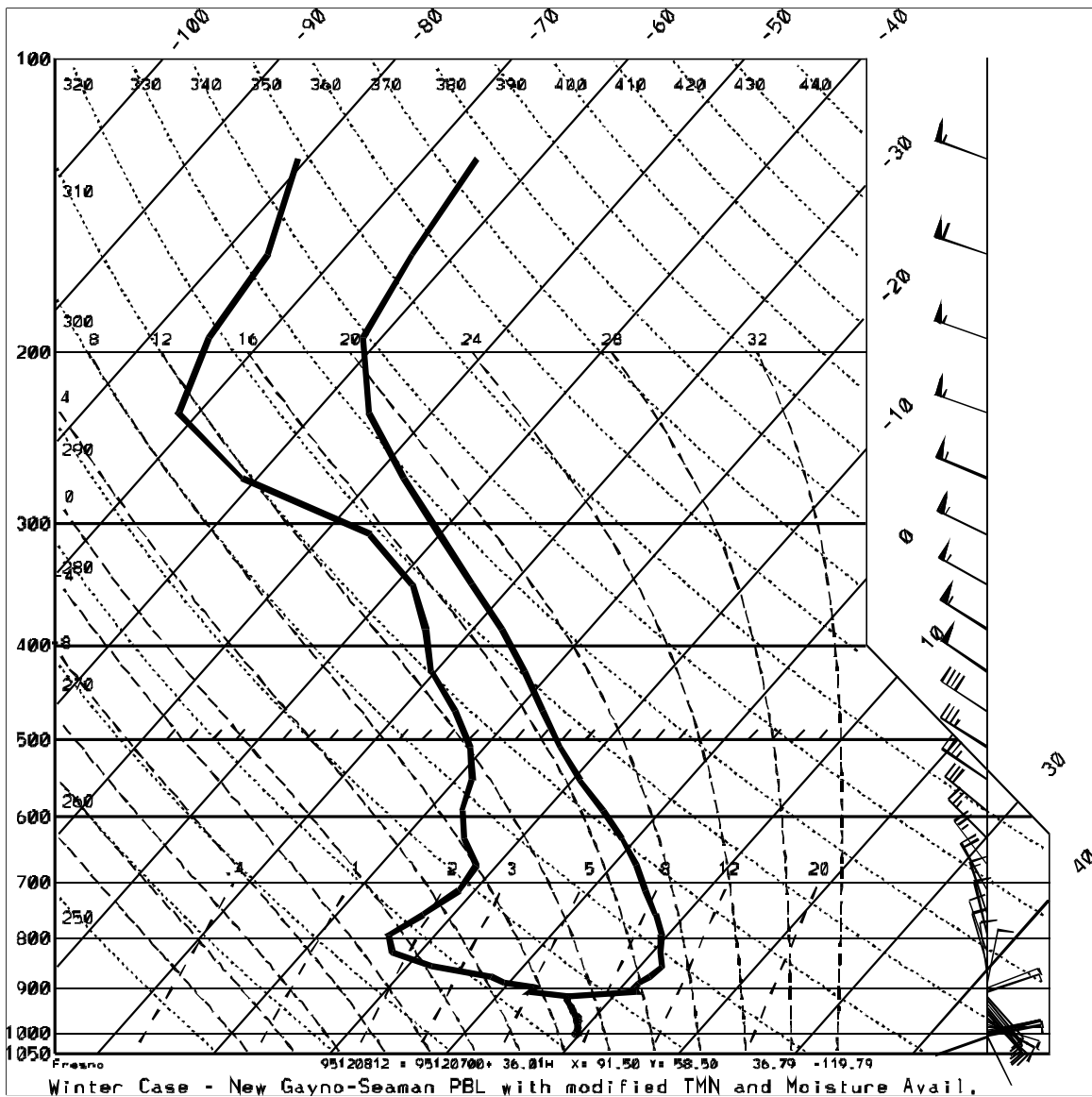


Figure 50. MM5 simulated sounding plotted at Fresno, CA, for 1200 UTC, 8 December 1995, (+36 h) in Exp. GS-3.

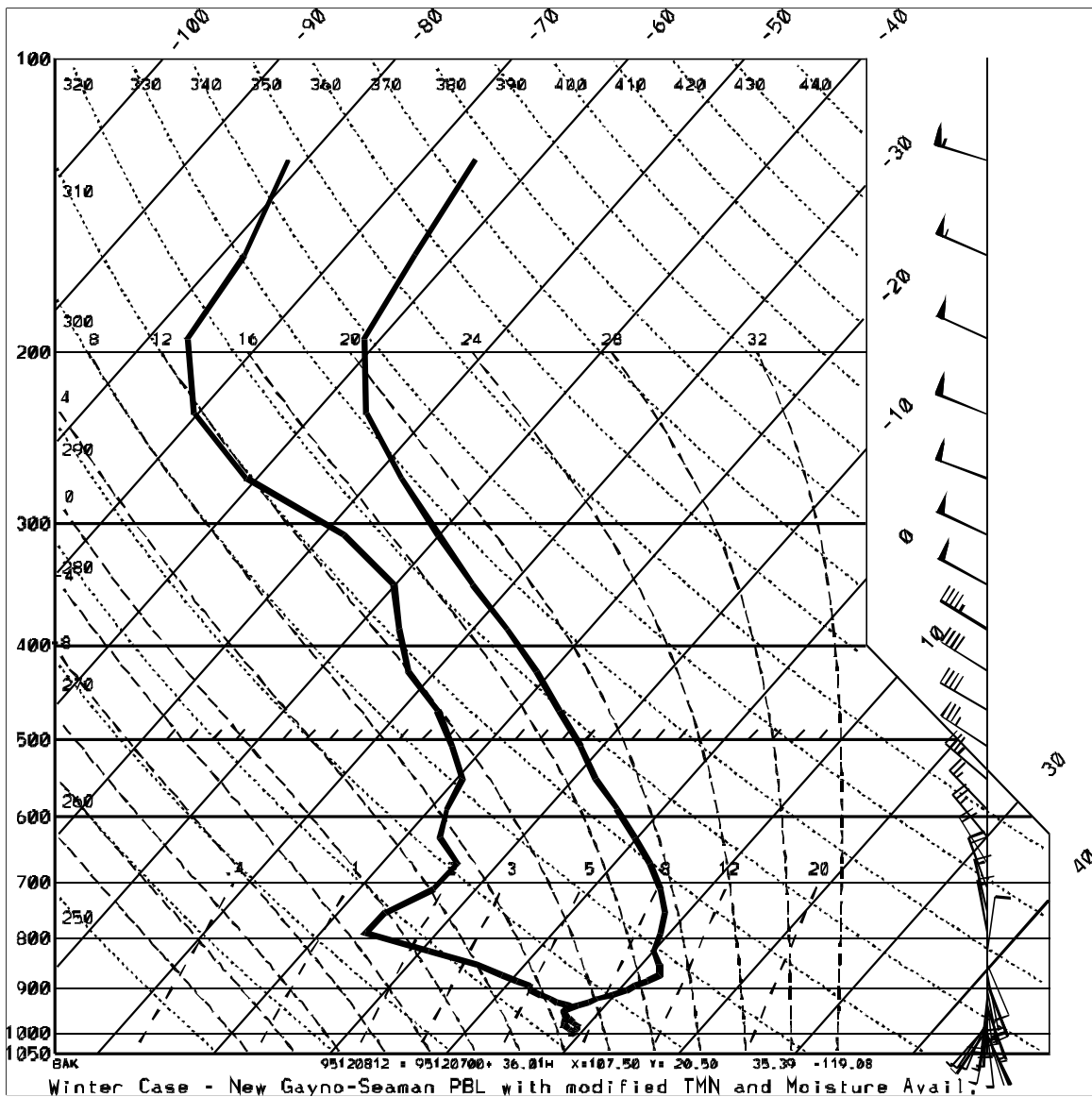
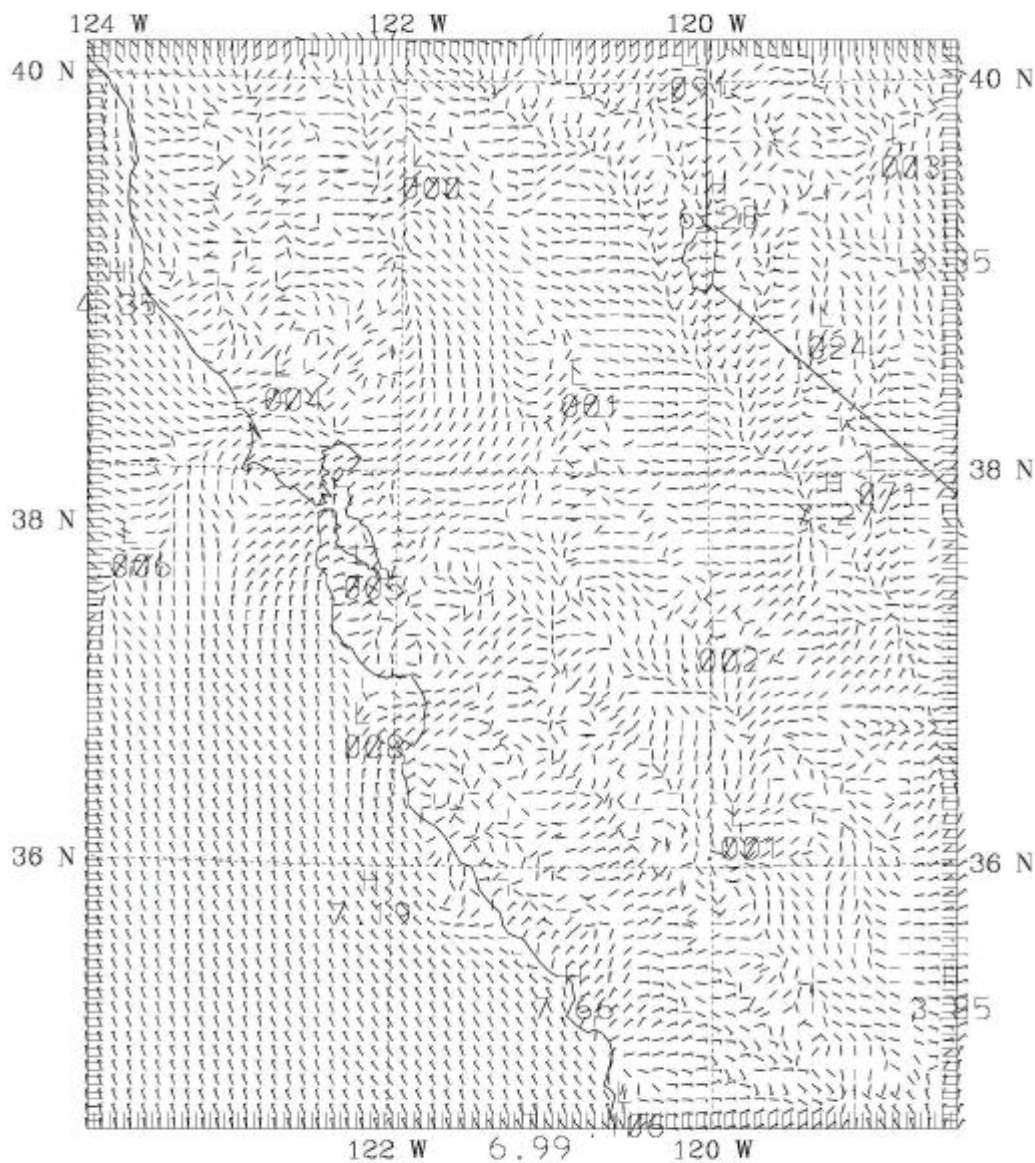


Figure 51. MM5 simulated sounding plotted at Bakersfield, CA, for 1200 UTC, 8 December 1995, (+36 h) in Exp. GS-3.



SIGMA = 0.999 WIND UV (m/s) 1 95120700 + 60.00H = 95120912 SMOOTH= 0  
 SIGMA = 0.999 BARB UV (m/s) 1 95120912 = 95120700 + 60.00H SMOOTH= 0



Winter Case - New Gayno-Seaman PBL with modified TMN and Moisture Avail.  
 CONTOUR FROM 10.000 TO 10.000 CONTOUR INTERVAL OF 10.000 PT(3,31)= 4.3393

Figure 52. MM5 simulated winds ( $\text{m s}^{-1}$ ) in the surface layer (6 m AGL) on the 4-km domain, valid for 1200 UTC, 9 December 1995, (+60 h) in Exp. GS-3. Isotach interval is  $10 \text{ m s}^{-1}$ .

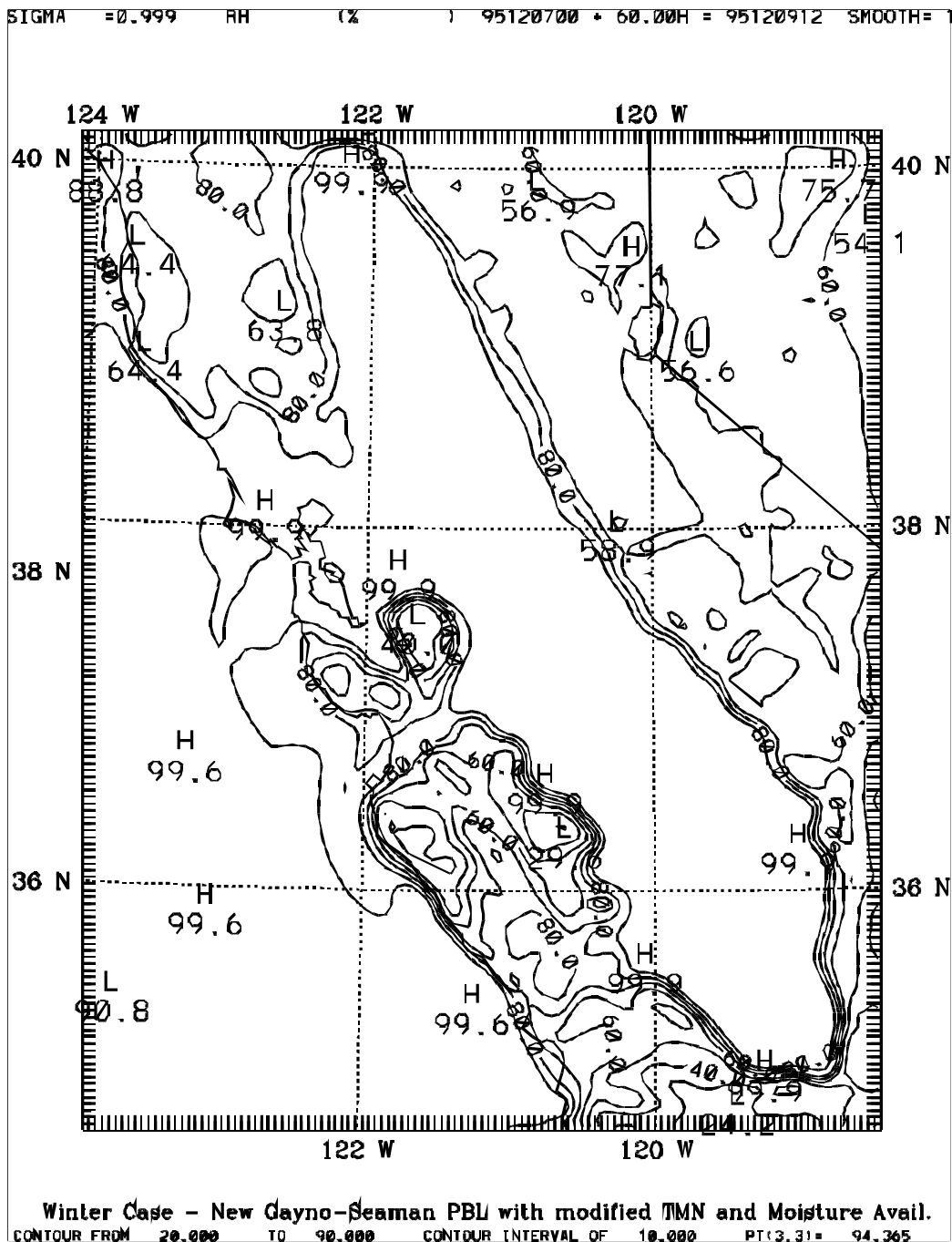


Figure 53. MM5 simulated relative humidity (%) in the surface layer (6 m AGL) on the 4-km domain, valid for 1200 UTC, 9 December 1995, (+60 h) in Exp. GS-3. Contour interval is 10 %.

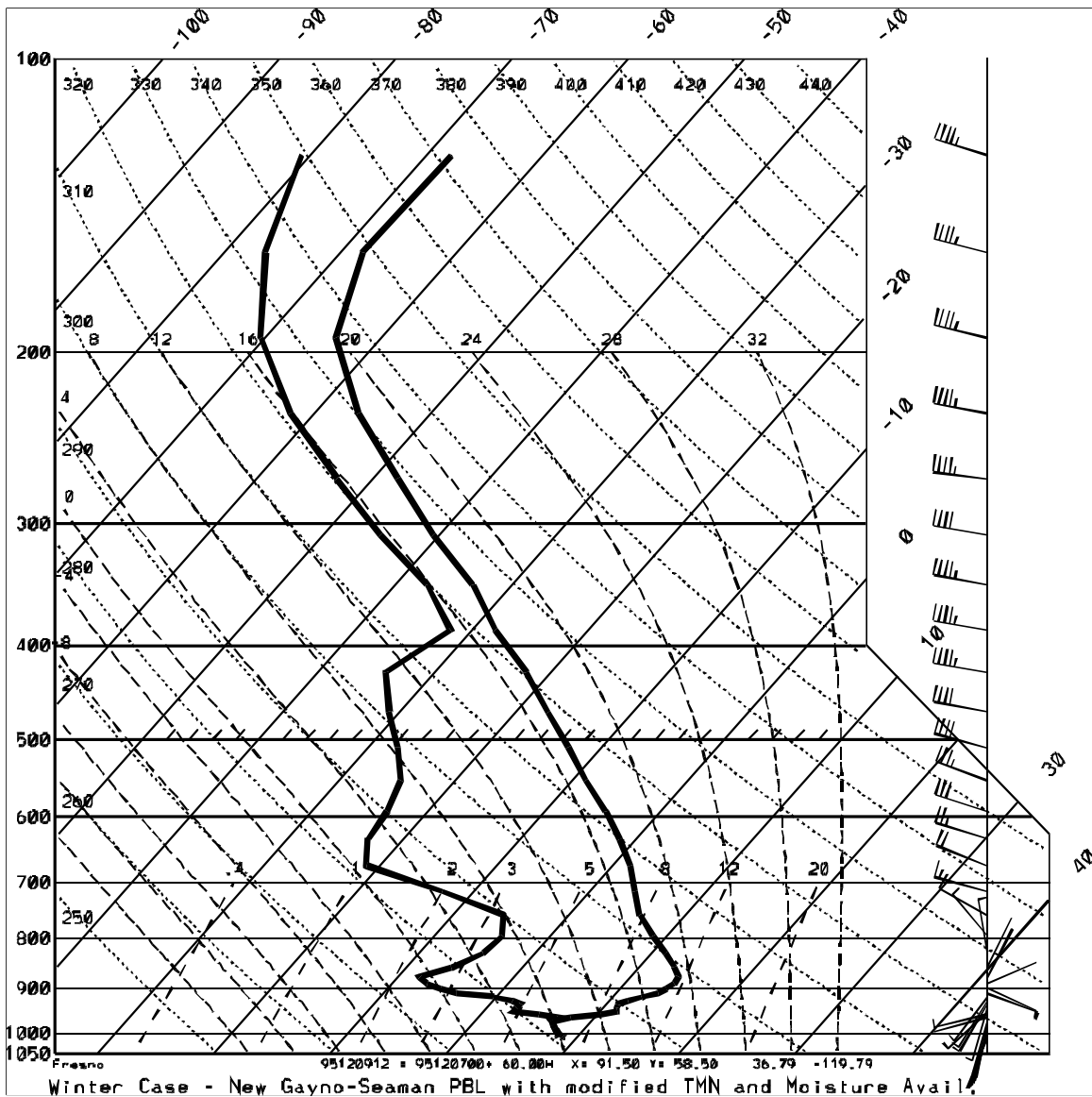


Figure 54. MM5 simulated sounding plotted at Fresno, CA, for 1200 UTC, 9 December 1995, (+60 h) in Exp. GS-3.

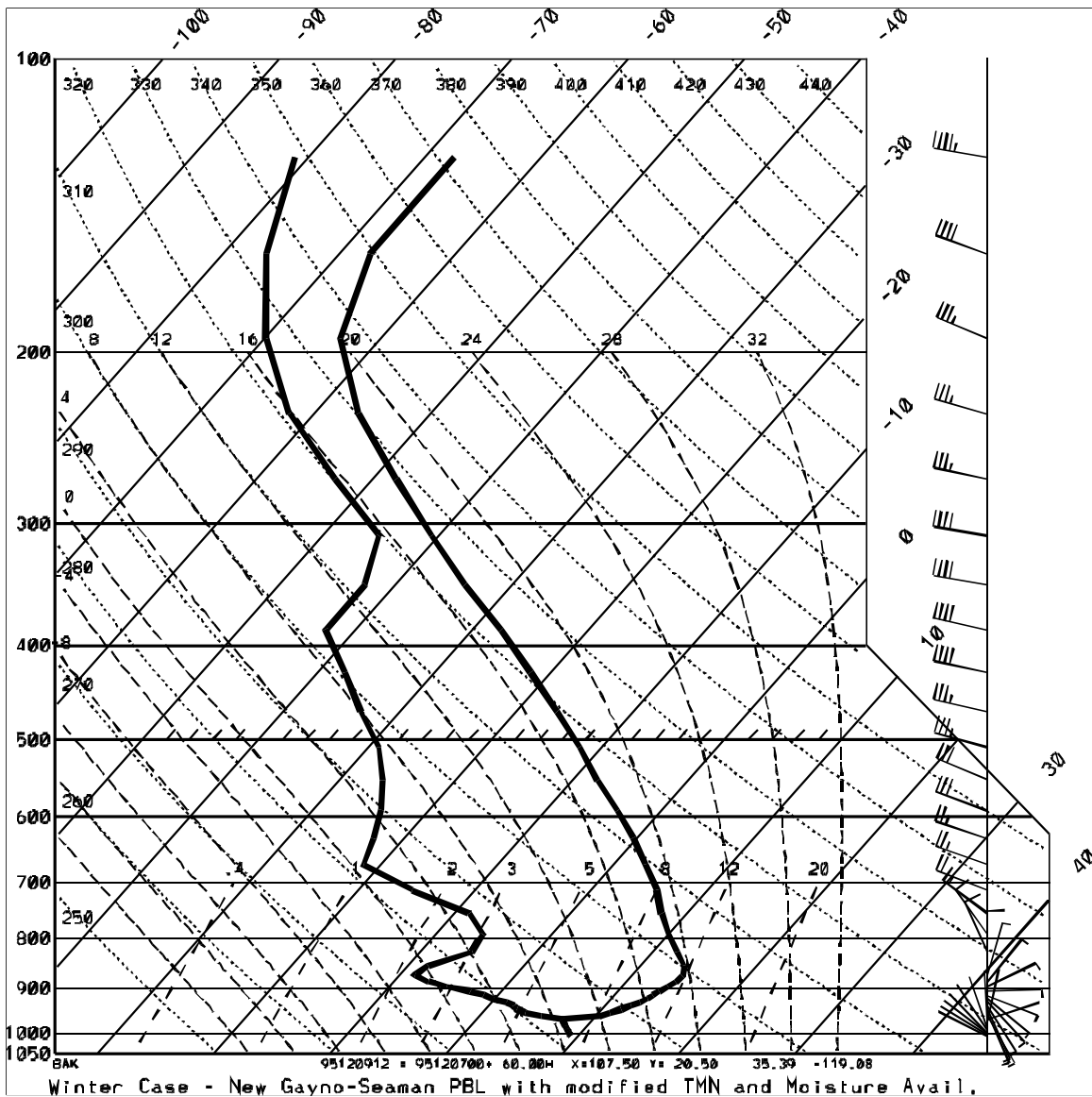


Figure 55. MM5 simulated sounding plotted at Bakersfield, CA, for 1200 UTC, 9 December 1995, (+60 h) in Exp. GS-3.

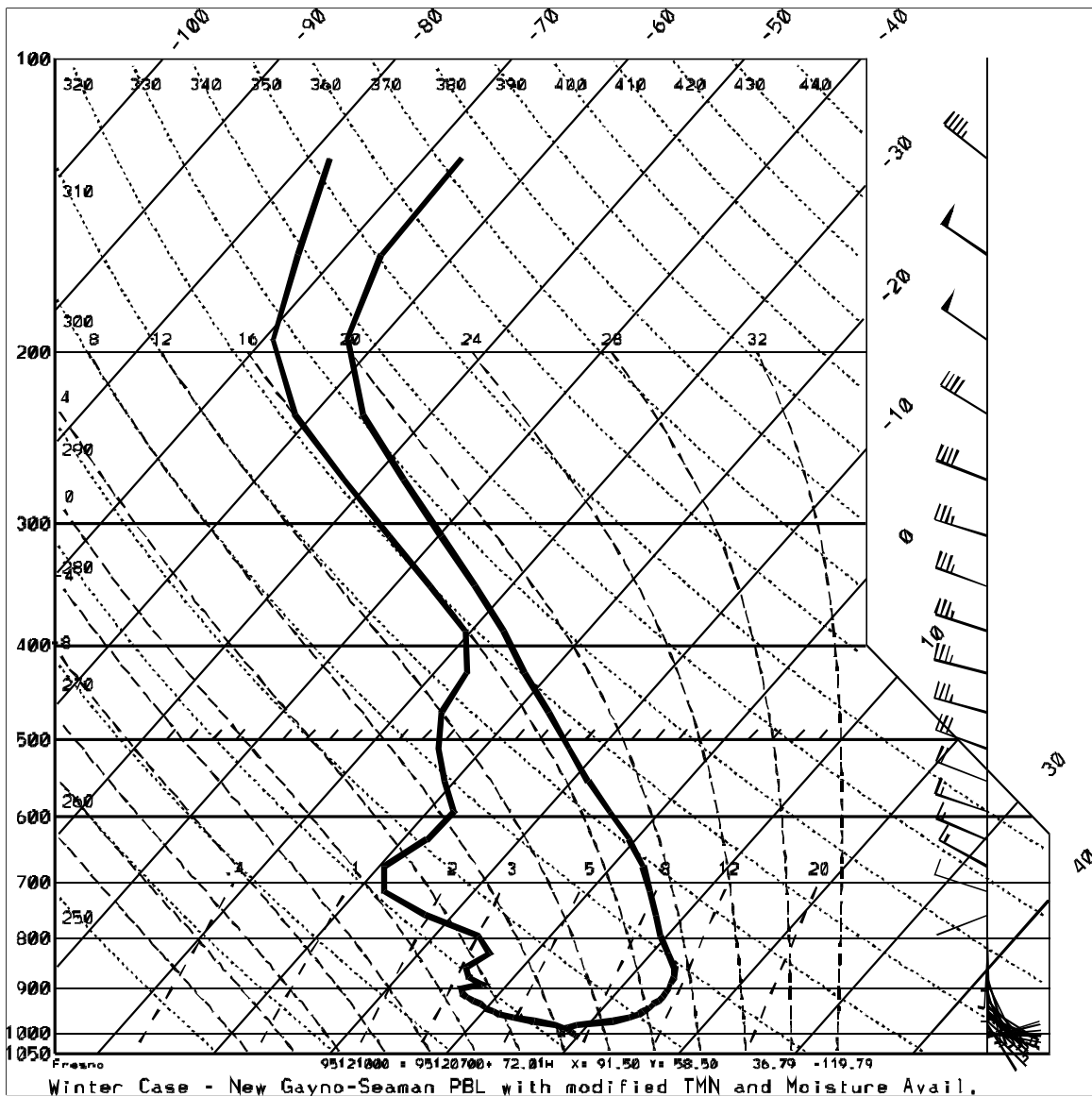


Figure 56. MM5 simulated sounding plotted at Fresno, CA, for 0000 UTC, 10 December 1995, (+72 h) in Exp. GS-3.

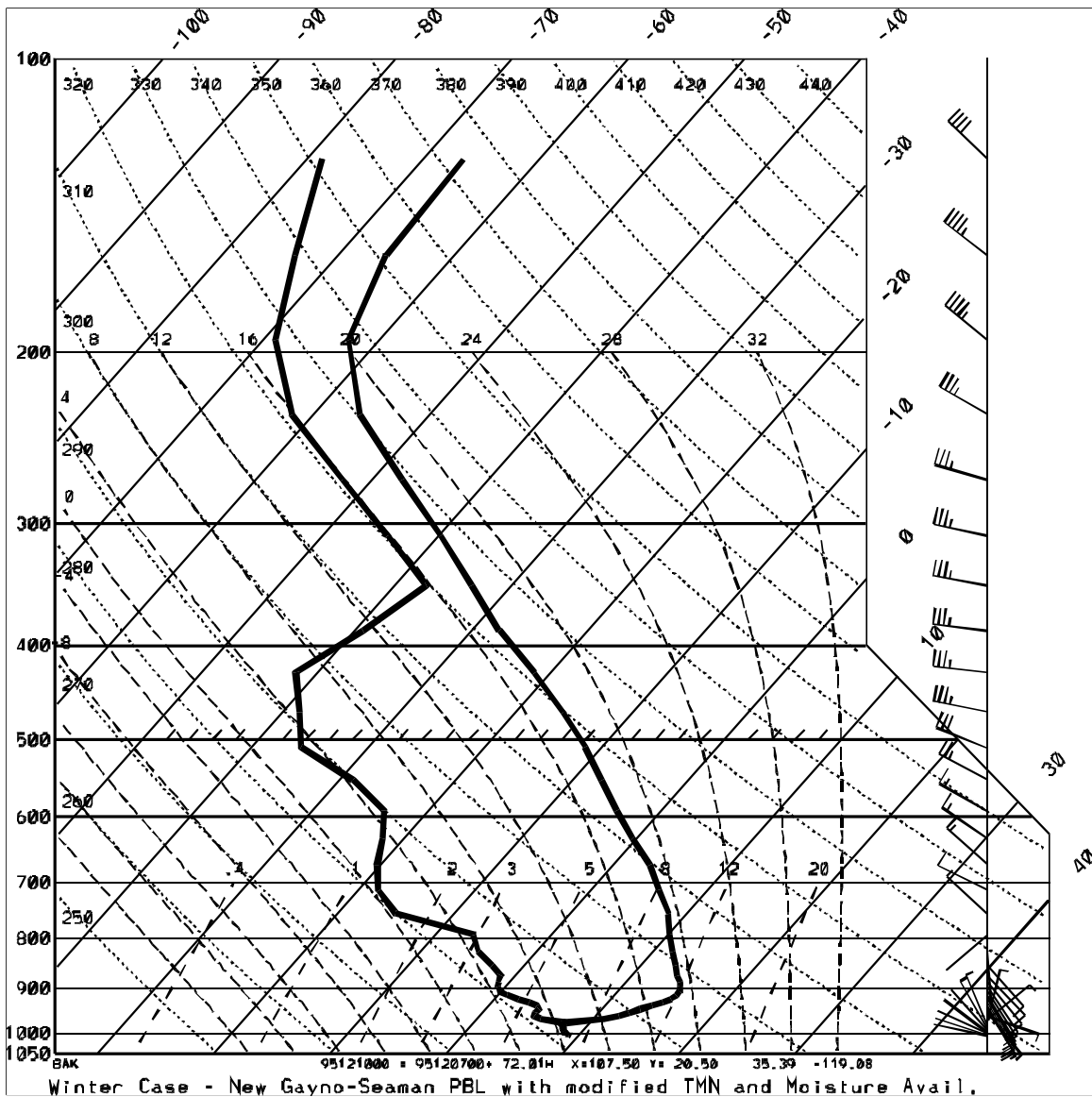


Figure 57. MM5 simulated sounding plotted at Bakersfield, CA, for 0000 UTC, 10 December 1995, (+72 h) in Exp. GS-3.

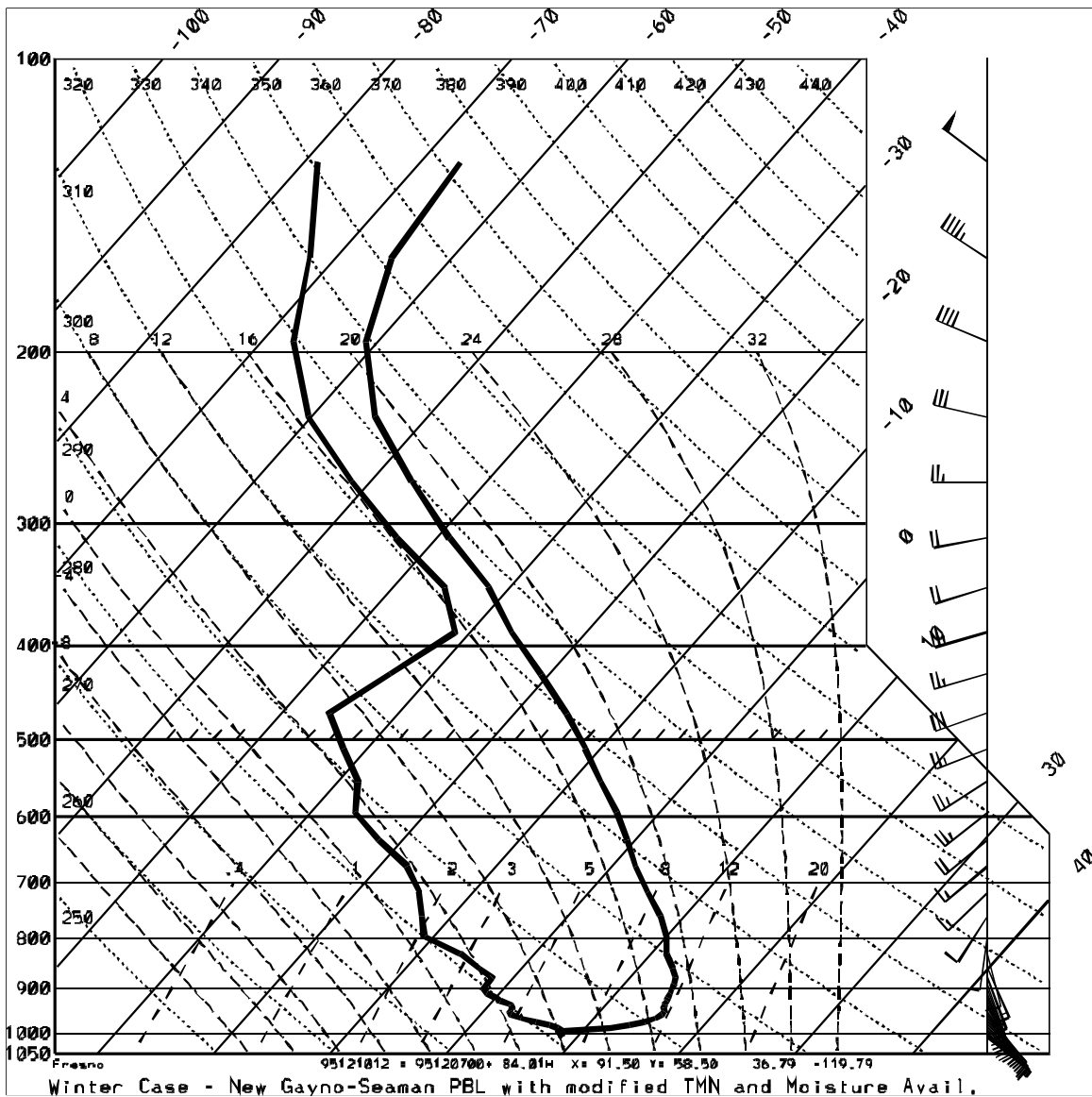


Figure 58. MM5 simulated sounding plotted at Fresno, CA, for 1200 UTC, 10 December 1995, (+84 h) in Exp. GS-3.

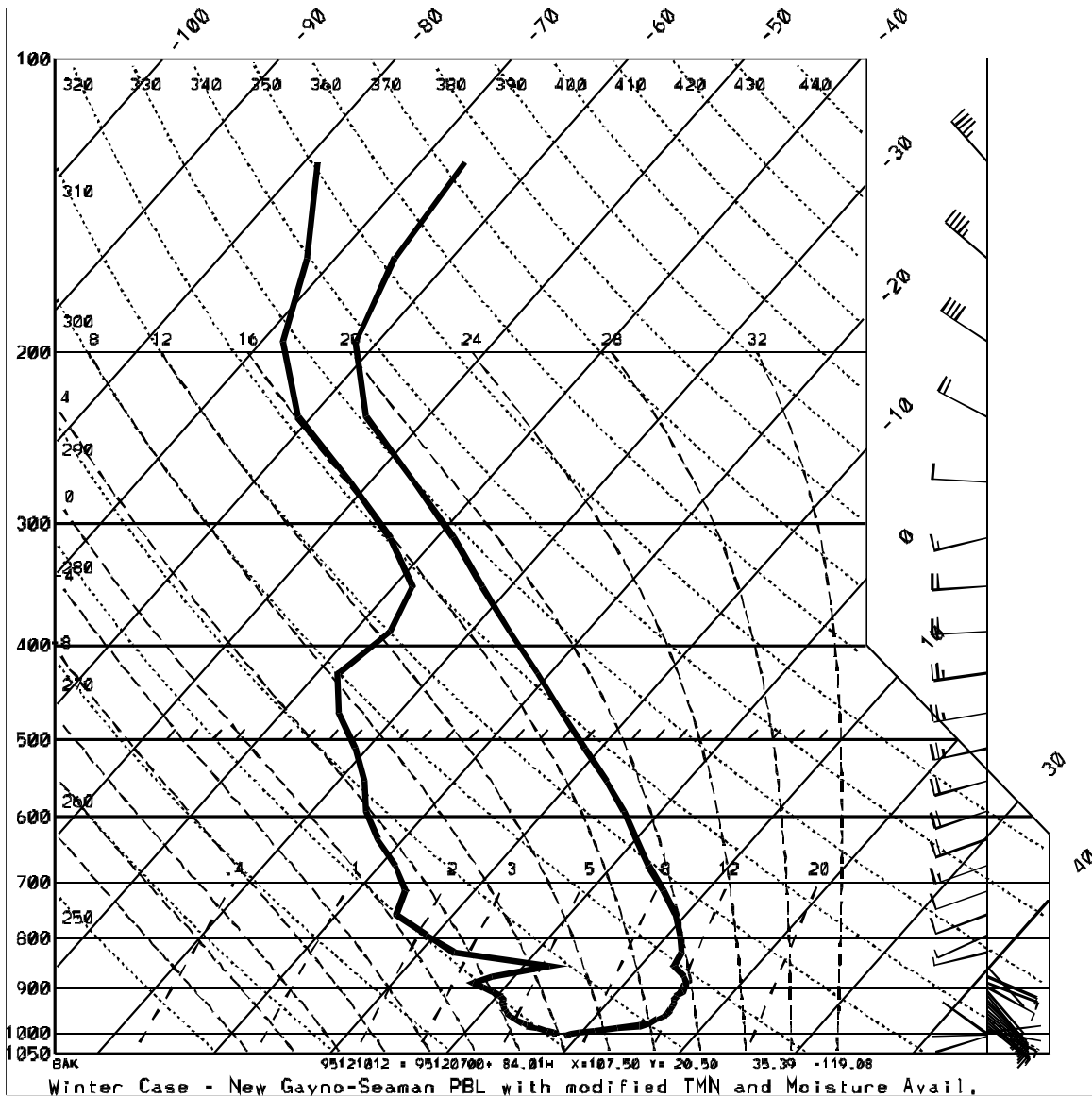
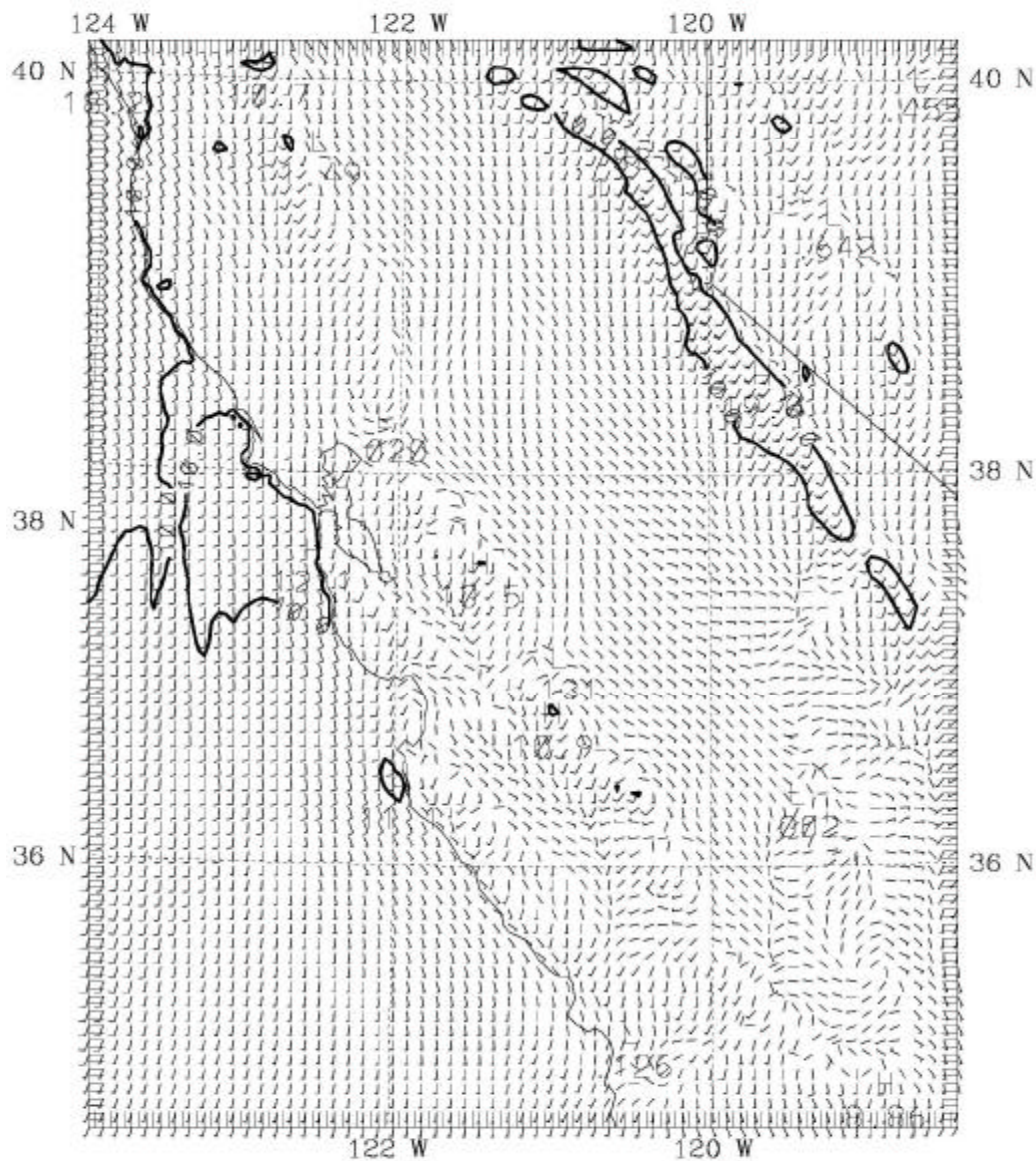


Figure 59. MM5 simulated sounding plotted at Bakersfield, CA, for 1200 UTC, 10 December 1995, (+84 h) in Exp. GS-3.



SIGMA = 0.999 WIND UV (m/s) 1 95120700 + 96.01H = 95121100 SMOOTH= 0  
 SIGMA = 0.999 BARB UV (m/s) 1 95121100 = 95120700 + 96.01H SMOOTH= 0



Winter Case - New Gayno-Seaman PBL with modified TMN and Moisture Avail.  
 CONTOUR FROM 0.00000E+00 TO 10.000 CONTOUR INTERVAL OF 10.000 PT(3.31- 7.8448

Figure 60. MM5 simulated winds ( $\text{m s}^{-1}$ ) in the surface layer (6 m AGL) on the 4-km domain, valid for 0000 UTC, 11 December 1995, (+96 h) in Exp. GS-3. Isotach interval is  $10 \text{ m s}^{-1}$ .

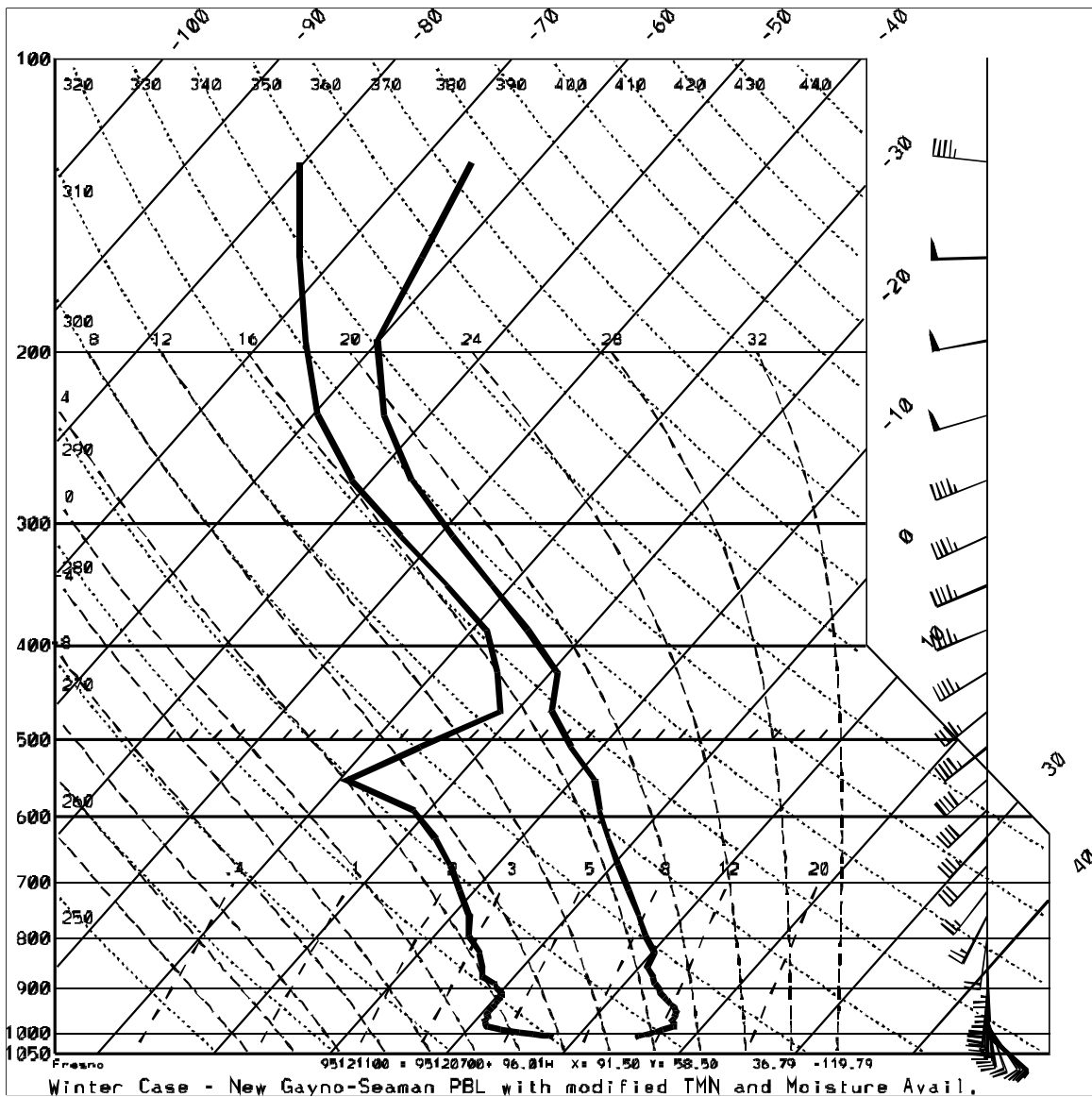


Figure 61. MM5 simulated sounding plotted at Fresno, CA, for 0000 UTC, 11 December 1995, (+96 h) in Exp. GS-3.

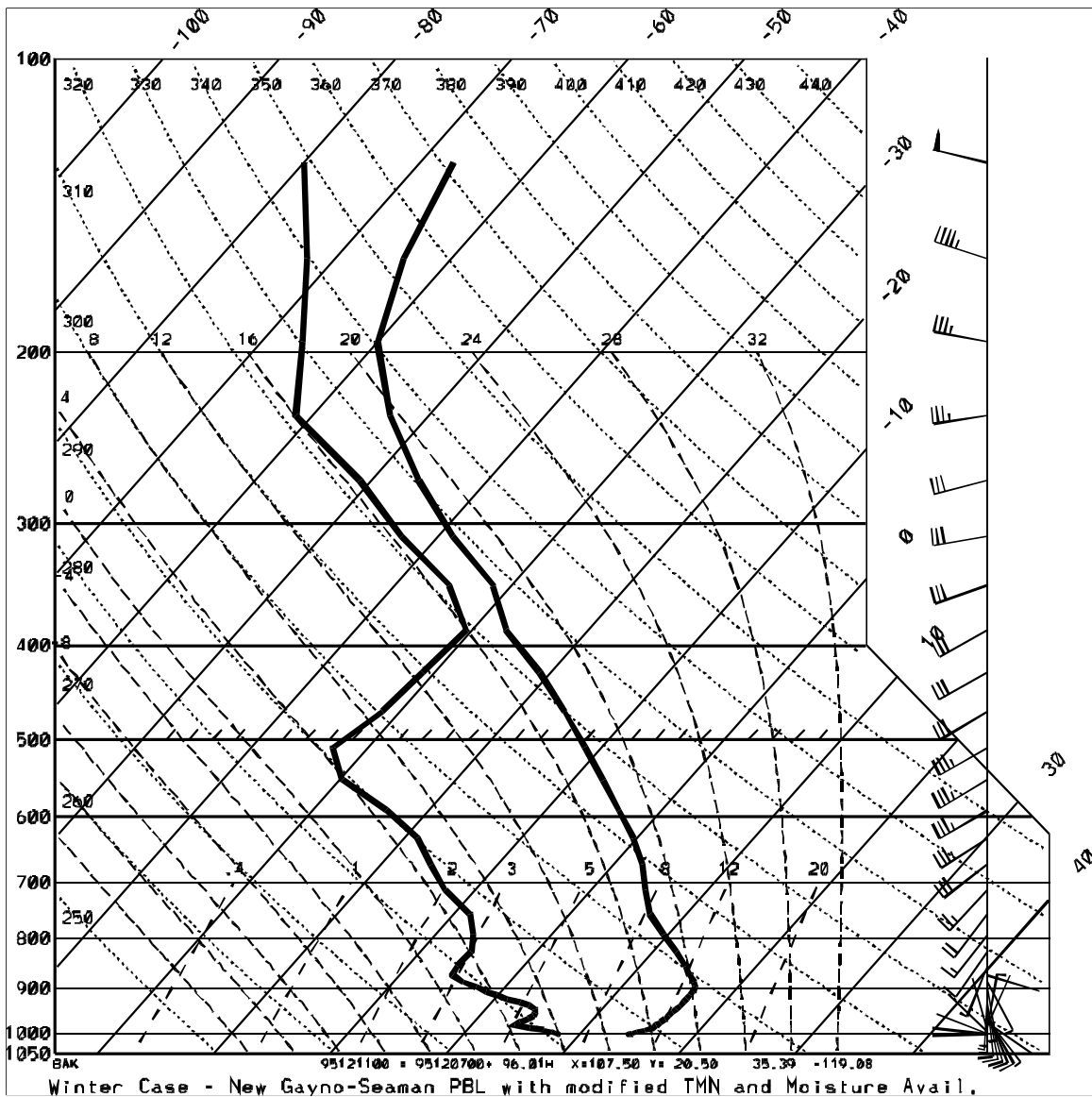


Figure 62. MM5 simulated sounding plotted at Bakersfield, CA, for 0000 UTC, 11 December 1995, (+96 h) in Exp. GS-3.

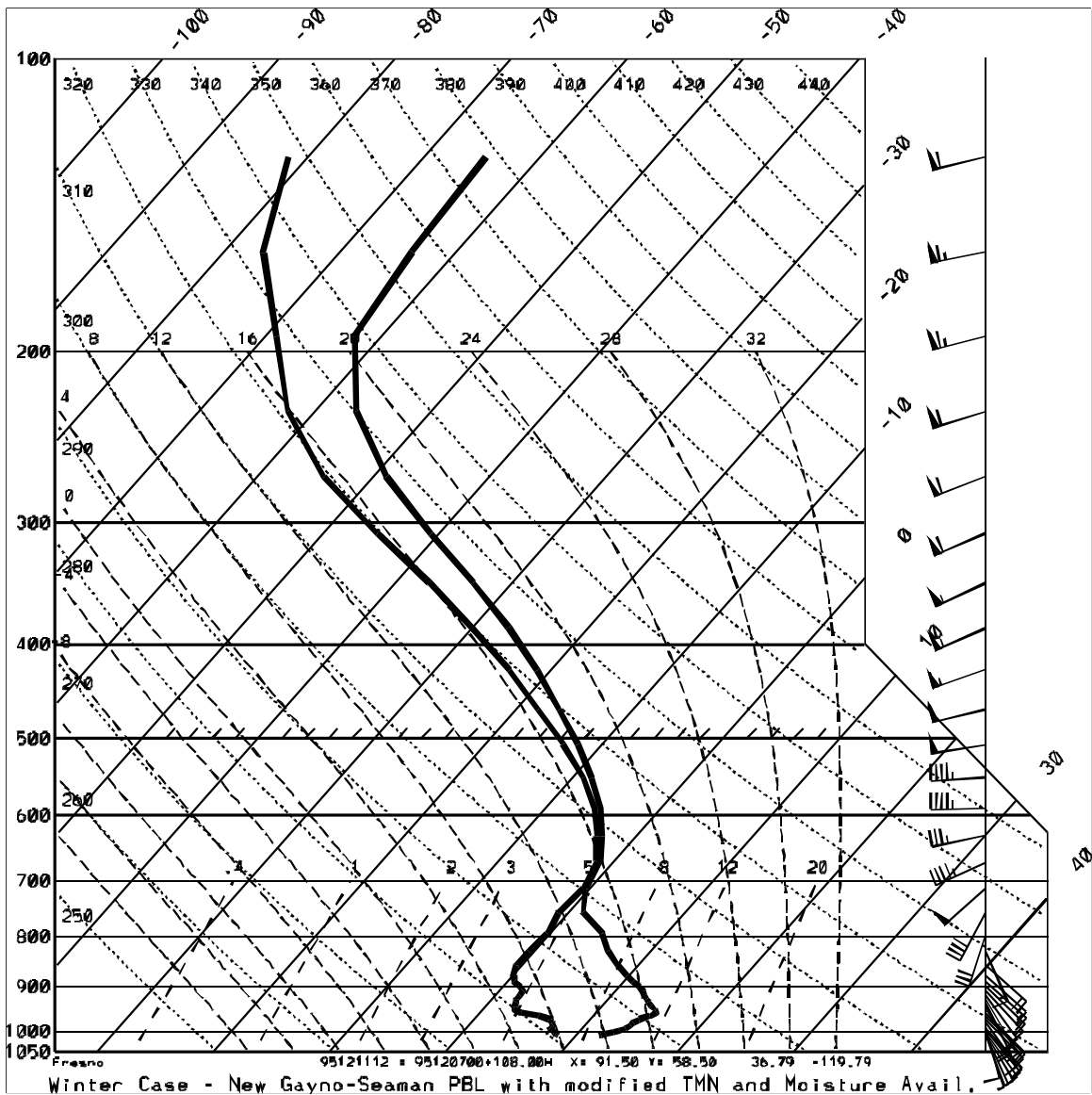


Figure 63. MM5 simulated sounding plotted at Fresno, CA, for 1200 UTC, 11 December 1995, (+108 h) in Exp. GS-3.

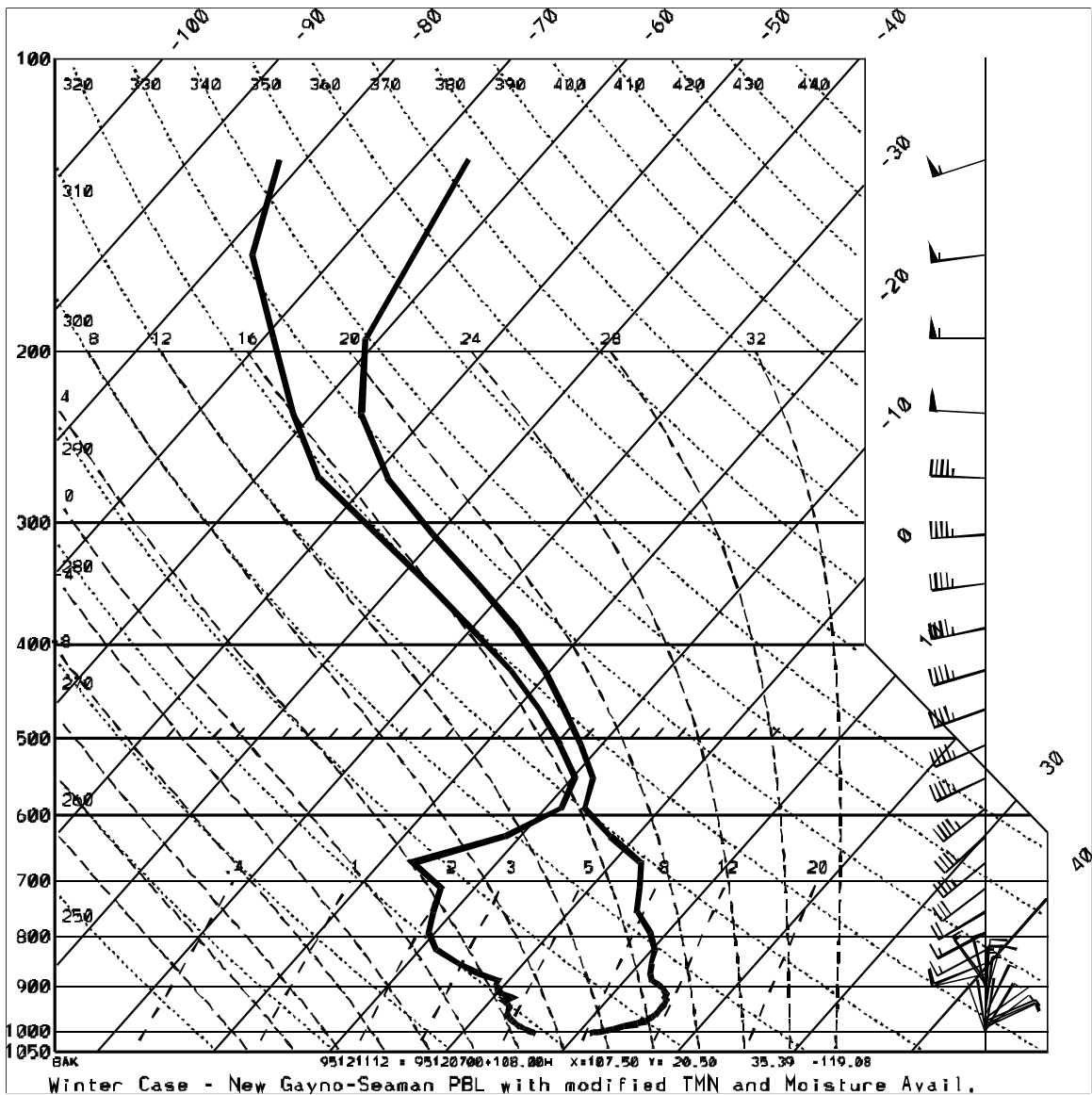


Figure 64. MM5 simulated sounding plotted at Bakersfield, CA, for 1200 UTC, 11 December 1995, (+108 h) in Exp. GS-3.